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Evaluation of the Medicare Part B Fixed Price Experiments in Maine, Upstate New York, and Illinois

EXECUTIVE SUMMARY

Contract No. HCFA-81-0041

October 1983

Prepared for

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EXECUTIVE SUMMARY

The Health Care Financing Administration (HCFA) is currently conducting a series of experiments which intend to reduce the cost of administration in the Medicare program. The experiments entail the use of competitively-awarded, fixed price contracts to purchase administrative services from companies ("carriers") which process Medicare Part B claims for the government. The use of fixed price contracts and the introduction of competitive bids as the mechanism for their award are major changes in the operation of this program, for Medicare's enabling legislation created a system of contracting whereby awards were to be made without competitive bidding on a cost reimbursed, nonprofit basis.

Abt Associates Inc. has conducted an evaluation of the fixed price experiments under a contract with HCFA. This final report presents our findings on fixed price experiments conducted in Illinois, upstate New York, and Maine. The three experiments involve carriers providing administrative services in the Part B (physicians and medical services) portion of the Medicare program.

We find that competitive, fixed price contracts have been successful in reducing the costs paid by the government for Medicare claims processing. While the experiments did entail disruption of services--the first year of the Illinois experiment was especially severe--these problems were due primarily to changes in carriers and consolidation of territory. Serious disruptions are not intrinsic to either fixed price contracts or the process of competitive awards if sufficient lead time and adequate monitoring occur. The experimental fixed price contracts contained provisions for assessing liquidated damages against carriers who failed to perform adequately. While some refinements of these damage payments are needed, the basic structure provides adequate incentives for good performance; there is no indication that the continuing performance of experimental carriers has been poorer than the performance of others.

The remainder of this executive summary describes the history of the fixed price experiment, the nature of the evaluation, and specific findings and recommendations of the study.

Background

Medicare is a federal insurance program which pays for a portion of the health care costs of elderly or disabled persons. Medicare is administered by the Department of Health and Human Services (DHHS) through the Health Care Financing Administration. HCFA, in turn, contracts with private health insurance organizations (Blue Cross/Blue Shield Plans and commercial insurance companies) and other organizations to administer the program in various territories throughout the country. In fiscal year 1981, there were 69 Part A intermediaries and 42 Part B carriers under contract with HCFA to administer the Medicare program.

Medicare is composed of two parts. Part A, Hospital Insurance Benefits for the Aged and Disabled, provides coverage for inpatient hospital services, and for post-hospital services in skilled nursing facilities and in the patient's home. It is financed principally by taxes on earnings paid by employers, employees, and by self-employed persons. As of July 1, 1980, approximately 27.5 million beneficiaries were enrolled in Part A of Medicare.

Part B of Medicare, known as Supplemental Medical Insurance Benefits for the Aged and Disabled, generally covers 80 percent of the reasonable charges for physicians, outpatient hospital, home health, and other medical supplies and services subject to an annual deductible. It is financed by beneficiaries' monthly premium payments and by appropriations from the general revenue of the U.S. Treasury. Enrollment in Part B of Medicare is voluntary. As of July 1, 1980, approximately 27.1 million beneficiaries were enrolled in Part B of Medicare.

Title XVIII of the Social Security Act authorized DHHS[1] to enter into contracts with organizations, already functioning as third party payors for health care services, to administer the Medicare program under arrangements which would result in neither profit nor loss to the contractor. These cost reimbursement contracts were awarded without competition at the discretion of DHHS. This method was considered necessary at the beginning of Medicare to provide for rapid and efficient implementation of the program. Third party payors were designated to be the government's contractors because the government wished to draw upon the administrative experience of the private insurance industry and it wished to avoid creating a large bureaucracy to process claims under the Medicare program.

As the Medicare program matured, the government's focus began to shift from its original concentration on implementing the program to issues of administrative costs and the quality of contractor performance. Studies by the Senate Finance Committee (1970), the Advisory Committee on Medicare Administration, Contracting, and Subcontracting (The Perkins Committee, 1973-1974), and the U.S. General Accounting Office (1979) noted considerable variance in performance and costs among contractors. These studies found that performance variations were so great as to justify contract terminations and suggested that Part B carriers might be compensated on a basis other than cost reimbursement, such as incentive payments tied to performance. They also suggested that a more competitive contracting environment, a reduction in the number of carriers, and an enlargement of the average size of carrier territories would result in lower Part B administrative costs.

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[1] In this report all references that properly belong to the Department of Health, Education and Welfare are attributed to its successor.

In October 1972, Public Law 92-603 was enacted. It authorized DHHS to perform experiments in Medicare contracting via fixed price or incentive arrangements with contractors. In 1974, HCFA began to take steps toward a more competitive form of contracting by seeking proposals from Part B carriers to undertake fixed rate reimbursement contracts on a voluntary basis. Under these contracts carriers would be paid a fixed dollar amount for each claim processed. One experimental fixed rate contract was eventually undertaken with Blue Shield of Maryland. Negotiations with the other carriers, however, were unsuccessful in part because the carriers could see no benefit to themselves from voluntarily accepting the risks of such contracts.

In the spring of 1977, HCFA began a new phase of fixed price experiments which departed sharply from its initial attempts at negotiated fixed rate contracts. The new experiments involved (1) a fixed payment for all contract administration with few opportunities for adjustments; (2) outright competition to select the carrier for a particular territory; (3) monitoring systems to measure contractor performance; (4) liquidated damage assessments (i.e., penalty payments) for inadequate performance; and (5) enhanced requirements for beneficiary services in the form of toll-free telephone service.

Incentive payments for superior performance have also been added to some of the more recent fixed price contracts.

HCFA has attempted to test the viability of fixed price contracts in varied settings; the first fixed price contracts were in the Part B programs in Maine, upstate New York, and Illinois. The Maine experiment was recompeted in 1981. The Illinois experiment was recompeted in 1982-1983 with the result that a former incumbent (the Blue Shield plan for Illinois) won the competition. The upstate New York experiment has now ended and the contract has reverted to a cost reimbursed contract. HCFA's second wave of fixed price contracting experiments was directed at the Part A program. There are currently two Part A experiments, one in New York and the other in Missouri and the area of metropolitan Kansas City. In a final wave of experiments, HCFA undertook fixed price competitions for the combined administration of Part A and Part B. Experiments were attempted in Puerto Rico and Colorado. In Puerto Rico, HCFA eventually decided not to award a fixed price contract due to an inadequate number of bids; a cost contract was negotiated with the incumbent. In Colorado, a contract was awarded to Blue Cross and Blue Shield of Colorado in December of 1982.

Scope of This Evaluation

In October 1981, HCFA awarded a contract to Abt Associates Inc. to conduct an evaluation of the Part B fixed price experiments in Maine, upstate New York, and Illinois. This evaluation encompassed the following activities.

- Case Studies. Operations of the three fixed price carriers were examined by visits to their main claims processing sites. In addition, six comparable, traditional cost reimbursed carriers were selected as comparison cases. These six carriers were also examined with the same site visit methods.
- Beneficiary Survey. A representative random sample of Medicare beneficiaries was contacted in a telephone survey. Beneficiaries

were asked about instances of hardship or inconvenience which they experienced in getting their Medicare claims processed. Beneficiaries were sampled from the three territories with fixed price carriers and from three other comparison territories served by traditional cost reimbursed carriers.

- Provider Survey. A representative random sample of Medicare Part B providers (physicians, medical equipment suppliers, ambulance services, etc.) was contacted in a parallel telephone survey. Providers were asked about the quality of service that they received from their carrier. Special attention was given to any changes in performance that might have occurred during the period of the fixed price experiments. Providers were sampled from the three territories with fixed price carriers and from two comparison territories served by traditional carriers.

- Analysis of Cost and Performance Data. Program data on the cost and performance of all Medicare carriers were examined for the period 1976-1981. The costs of fixed price carriers were compared to other carriers using various statistical methods. In addition, levels of program benefit payments were examined in relation to the carrier's level of administrative cost.

- Correspondence Review. A representative random sample of correspondence exchanged by the carrier with beneficiaries and providers was examined for each fixed price carrier and for six comparison carriers. Correspondence (e.g., complaint letters, requests for payment adjustments) was examined for both the clarity and correctness of the carrier's response.

- Review of HCFA's Methods of Awarding Contracts. Abt Associates reviewed all phases of HCFA's award processes for the fixed price contracts. We examined the proposals submitted by the bidders and reviewed HCFA's methodology for scoring proposals. Extensive discussions were held with HCFA staff to learn about the rationale of the current award process, its history of development, and alternative approaches that were considered or rejected.

- Review of HCFA's Methods of Monitoring Carrier Performance. HCFA's current system for monitoring carrier performance was reviewed along with its history of development.

Major Findings

Major findings of Abt Associates' evaluation of the Part B fixed price experiments are the following.

- Fixed price contracts have been successful in reducing the administrative costs paid by the government for Part B claims processing services.

Examination of program data on carrier administrative costs reveals that HCFA paid appreciably less for carrier services under fixed price arrangements than it would have paid for comparable service under traditional cost reimbursed contracts. This saving is made more impressive by the fact that administrative costs for processing Part B claims have fallen markedly over the history of the program.

Estimates of HCFA's savings on administrative cost are sensitive to assumptions about what would have happened in the absence of an experiment. Estimates are also subject to statistical variation. Within this context, savings in administrative cost from the Illinois experiment ranged from $27 to $65 million; in upstate New York the range is $8 to $33 million; in Maine the experiment may ultimately save $5 million or lose $1 million (i.e., 6 percent of the fixed price) depending on assumptions about cost performance through 1984 for the Maine II contract. These estimates include an allowance for liquidated damages recovered by the government in cases where carriers fail to meet performance standards. Through fiscal year 1981, the three fixed price carriers as a group have received payments which are 26 percent lower than the payments which they would have received under standard Medicare cost contracts.

Our analysis of data reveals that incidental features of the experiments, such as the consolidation of territories and the enhancement of computer systems, played a relatively small role in explaining these cost decreases. A more important source of cost savings to the government was the formal competition for contracts. Under the pressure of formal competition, carriers were forced to search for more efficient methods of operation and less expensive operating sites. The most striking example of competitive pressure occurred in the upstate New York experiment where the incumbent carrier abandoned its operations of 13 years in the Buffalo area to move to a lower cost area 150 miles away in Binghamton.

- Fixed price carriers received lower payments for overhead and joint cost items than under traditional cost contracts. Assertions that carriers had losses or profits on fixed price contracts are highly sensitive to cost allocations between Medicare and other lines of business.

Savings to the government on fixed price contracts were apparently not completely matched by cost reductions achieved by the fixed price carriers. Examination of the experiment carriers' reported costs shows that their fully allocated operating costs usually exceeded their contractual levels of fixed reimbursement. Comparison of the fixed payments received by the carriers with their (unaudited) costs using standard Medicare cost reports shows notable differences. Through fiscal year 1981, reported costs exceeded fixed price payments (less penalties) by 55 percent for Illinois, 22 percent for upstate New York, and 11 percent for Maine. While it seems quite likely that the carrier lost money on the Illinois experiment, losses for the carriers in Maine and upstate New York are less clear.

Discussions with the carriers and analysis of their costs suggest that carriers have certain overhead costs which are jointly borne by their Medicare operations and by private lines of business. In traditional cost contracts, both the Medicare program and private business benefit from economies achieved by joining different lines of business under one operation. The Medicare program, however, pays its "full share" of joint costs rather than a prorated share reflecting the marginal economies that it engenders. In the fixed price experiments, carriers have told us that they reallocated some of their joint costs to private businesses in order to achieve a bid price sufficient to win contracts in a competitive situation.

The fixed price competitions thus generated a classic effort at economizing. Firms reduced costs where they could and they reallocated some joint overhead costs that could not be quickly reduced. Prices bid in the Medicare competitions thus tended to equal a carrier's marginal direct costs of doing Medicare work plus a charge for joint corporate overhead costs that was lower than what would have been charged under a traditional cost contract. The net result of this pricing strategy was a savings to the Medicare program.

More widespread adoption of competitive fixed price contracts is thus likely to discourage some present carriers from remaining as Medicare carriers because they are unable or unwilling to perform Medicare work at a price which equals the marginal cost of the more economically efficient carriers.

- The economies in administrative costs due to fixed price competitive contracting have occurred without apparent compromises in the quality of carrier operations or in the quality of stewardship of trust fund dollars used to pay benefits.

There is no indication that implementation of the experimental contracts has affected levels of benefit payments per enrollee; a variety of statistical analyses fail to show any effect of the experiments on benefit payments. This suggests that the administrative economies stem from true gains in efficiency--rather than in resource use which entails trade-offs against the quality of stewardship of Medicare program dollars.

There are also no indications that the process of claim administration for fixed price contractors is less adequate than for other carriers of comparable size. HCFA's program monitoring statistics show that the timeliness of claim processing, operating standards, and error rates for experimental carriers are within the performance range of other carriers in their peer group. However, in the early period of experimental operations in two sites (Illinois and upstate New York), there were obvious disruptions in the quality of operations which were reflected in poorer performance on indicators of administrative operations. These deficiencies were corrected.

- Disruptions in service occurred in varying degrees for two of the fixed price experiments. These disruptions were mainly start-up problems due to the consolidation of separate territories.

In both the Illinois and upstate New York experiments there were delays in claims processing, increased errors in payments, and delays in responding to complaints. In Illinois, serious problems persisted for the first 18 months; in New York there were fewer problems and these were resolved within 6 months. There were no appreciable disruptions in the Maine experiment.

In the Illinois experiment, a large share of the blame for these problems rests on site selection error by the carrier, Electronic Data System Federal, Inc. (EDSF). The carrier seriously misjudged the availability of clerical labor when it chose to set up operations in Des Plaines, Illinois, a Chicago suburb. A high turnover of clerical staff coupled with the need to train new hires in basic data entry skills forced the carrier to relocate its operations to more rural communities with more stable and less expensive labor forces. The carrier's initial inability to retain staff meant that it had too few people to process claims and too many errors in claims that were processed. As a result, new claims piled up and a chain reaction of complaints and claim resubmissions set in.

In the upstate New York experiment, a backlog of claims and correspondence occurred mainly during a three month period when the Utica, New York area was transferred from the outgoing carrier to the fixed price carrier. Delays in claims processing were not severe, and they followed a pattern similar to the experience of territorial consolidations among traditional cost carriers in Delaware, Washington, D.C., and South Dakota.

- Disruptions in service were more frequent in those fixed price experiments that were designed to remove long-standing inefficiencies in Medicare operations.

In the first Maine fixed price experiment, there were virtually no disruptions in services. This occurred in part because no attempt was made to consolidate the small Maine territory into any neighboring areas. In addition, no major changes were made in the medical procedure coding system which the carrier used as the basis for determining payments. The Maine experiment, consequently, purchased its tranquility by not seeking either economies of scale (through consolidation) or changes in the carrier's ability to monitor payments and compare them to other regions.

In upstate New York and Illinois, small or medium size territories were combined into a single area and their separate procedure coding systems were converted into a uniform system. Both experiments sought to eliminate inefficient carriers, achieve economies of scale, and enhance the ability to monitor payments for covered services.

It is also significant that the fixed price carriers in New York and Illinois were willing to risk disruptions in operations in order to keep labor costs at reasonable levels. In New York, the carrier was successful in moving from Buffalo to Binghamton to achieve lower labor costs. In Illinois, the new carrier made an initial mistake in site selection and it subsequently became necessary to change locations. Under traditional cost contracts, both

HCFA and the carriers would have been presented with the easy temptation to treat high labor costs in a particular area as an unfortunate factor that could not be corrected; under fixed price, the carrier was operating under incentives which made it essential to pursue economies.

- HCFA has developed a program for measuring carrier performance and assessing penalties. Technical flaws in this program have been steadily eliminated.

All of the fixed price contracts have operated under systems which measure the carrier's performance and assess monetary penalties for failure to meet standards. The Maine I, New York, and Illinois contracts operated under *ad hoc* monitoring plans which had a number of technical shortcomings. The Maine II contract has used an improved monitoring system--the Contractor Performance Evaluation Plan (CPEP). Recent Request for Proposals (RFPs) for fixed price experiments in Puerto Rico and for a recompetition in Illinois have shown further evaluation improvements. Most notable has been a movement toward absolute standards of performance. The early fixed price experiments in Maine and Illinois were hampered by a cumbersome system of measuring the carrier's performance relative to all other carriers. This early approach made it difficult for carriers to meet standards because the standards themselves (a level of performance relative to the national median) were "moving targets" with values that were unknown for months after the contractual date of measurement.

- There is little evidence that beneficiaries have been seriously inconvenienced on a continuing basis as a result of the fixed price experiments.

During the period of initial disruption in the Illinois experiment, large numbers of beneficiary complaints were received by the Social Security

Administration (SSA), HCFA, and congressional offices. These complaints have now decreased to near normal levels. A similar but much smaller outbreak of complaints occurred at the start of the upstate New York experiment, especially in the Rochester area. These complaints produced some examples of serious financial hardship or personal anguish due to delays and errors in claim payment.

There is no evidence that these start-up problems have continued. In the autumn of 1982, Abt Associates conducted a telephone survey of Medicare beneficiaries to see if persons in areas served by fixed price carriers were having more Medicare-related problems than persons in areas served by traditional carriers. The telephone survey was based on a statistically representative sample of beneficiaries which was constructed so that persons who were likely to have problems with Medicare claims had a higher probability of being contacted. Survey respondents were asked about any Medicare claims problems they may have had in the last year and any financial hardship which they experienced (e.g., inability to pay their rent) as a result of delays in Medicare payment.

Our survey found that only a small proportion of Medicare beneficiaries experienced financial hardship while awaiting Medicare claims payments. In cases where hardships were reported, the speed of payment and the amount of the claim were seldom important factors. Much more important was the fact that the beneficiary was already in poor health or had a low income so that any medical bills were a problem. This occurs because beneficiaries have to meet their portion of medical bills (i.e., deductibles and copayments) even when Medicare pays promptly.

In the fixed price experiment areas, we found that beneficiaries were no more likely to report financial hardships resulting from Medicare payment problems. We also found no statistically significant evidence that service by a fixed price carrier was itself related to the frequency of financial hardship.

As a final remark, our survey did find a small number of cases (in each geographic territory) where beneficiaries in poor health were troubled by a delay in the processing of a claim for a large dollar amount. We believe these persons would be helped if Medicare carriers generally adopted a practice, started by EDSF in Illinois, of sorting out large claims and routing them for special handling.

- The Part B fixed price experiments have not caused financial harm to Medicare providers. Neither have they promoted disaffection with the Medicare program or changes in assignment rates.

An increased incidence of complaints from Medicare providers marked the start of each fixed price experiment. Complaints were presented individually and through professional organizations. The pattern of complaints in the fixed price areas resembled those in South Dakota, Delaware, Washington, D.C., and Milwaukee, Wisconsin when these territories experienced consolidations and changes in traditional cost reimbursed carriers.

Provider complaints tend to rise whenever there is a change in carriers. This occurs in part because payment errors and claims processing delays increase temporarily whenever carriers change. Complaints also occur because a new carrier may change claims processing procedures or challenge practices or fees allowed by the previous carrier. No discernible change in assignment acceptance or Medicare program participation followed these outbreaks.

Abt Associates conducted a telephone survey of Part B providers in the fall of 1982 to learn about their experiences with their Medicare carriers. The purpose of the survey was to learn if providers felt they received a different quality of carrier service from fixed price contractors. The survey asked about the provider's satisfaction with a carrier's claims processing service, financial hardship caused by claims problems, and willingness to accept assignment or treat Medicare patients. The survey contacted a statistically representative sample of Part B providers located in the three fixed price territories and in two control areas. The survey was designed to give special attention (disproportionately oversample) to physicians with small practices and to nonphysicians (e.g., medical equipment suppliers). The survey was designed to interview only providers who had been in practice for several years; survey respondents consequently had an historical perspective on Medicare and they could knowledgeably compare the fixed price carrier with its predecessor.

The survey showed that very few providers experience financial hardship due to problems with Medicare claims processing and that carrier service disruptions have had no effect on assignment acceptance or willingness to treat Medicare patients.

Providers were asked about their overall satisfaction with their current carrier. Providers in Illinois and New York were generally less satisfied than providers in other sites while providers in Maine were generally more satisfied. Further analysis showed that providers in Illinois and New York had been so dissatisfied with the performance of their previous cost reimbursed carrier that they did not find the new fixed price carriers to be appreciably worse. When providers were asked how much their carrier's performance had changed within the last year, respondents at all three fixed price sites much more frequently reported improvements than did respondents at the control sites.

Attitudes toward the Medicare program in general were fairly consistent across all survey sites. Providers were asked to compare their experience with Medicare to their experience with their private practice. We found that the majority of providers had unfavorable views about Medicare's level of payment, but favorable views about its speed of payment. Views about the level of Medicare's paperwork burden relative to other payors were mixed.

- The absence of negative attitudes about program administration among beneficiaries and providers is corroborated by the performance of experimental carriers in handling correspondence for these groups.

Random samples of entire files of correspondence were obtained from the three experimental sites and from six other carriers. These files were analyzed to determine:

- if the experimental carrier's disposition of inquiries was as accurate, thorough, and timely as other carriers; and
- if the explanations offered by the experimental carriers were as clear and easy to read as in other territories.

We find that experimental carriers have been at least as timely in responding to inquiries and in reaching final closure. Likewise, the data from our sample files show that experimental carriers are no less accurate or thorough in handling inquiries. Interestingly, the highly automated correspondence systems which have been implemented in the experimental sites (as an economy measure) do not seem to preclude direct and complete responses to client inquiries.

The correspondence sent by carriers to beneficiaries is usually difficult to read and understand; likewise, the handbook issued by HCFA explaining the Medicare program suffers from the same fault. The complexity of the Medicare program itself is the main cause of these complicated, hard to read materials. Relative to others, correspondence generated by the experimental carriers was not significantly different in this respect.

Readability was assessed by widely accepted techniques for measuring the difficulty of comprehension; basically, word lengths and sentence lengths are used for this purpose. We find that carrier correspondence often requires comprehension levels usually associated with 13 to 16 years of formal education. A sample of text shows that Your Medicare Handbook may require 13 to 14 years of schooling to be comprehended. While the comparable performance of experimental carriers provides no evidence of perverse fixed price incentives, these findings do point to a real and remediable problem in program administration.

- HCFA's method of judging proposals and awarding contracts has been fair and consistent with its goal of encouraging competition and lower costs. Fixed price contracts have been awarded to experienced firms which could be reasonably expected to do good work. HCFA's proposal scoring methodology, however, needs to be refined to use more fully the technical skills of its review panels.

In scoring proposals in the fixed price experiments, HCFA gave points for price, offeror's experience, and quality of the technical proposal. Each experiment awarded points in slightly different proportions with no one factor ever dominating the selection process. Bidders in the fixed price experiments were all experienced and had satisfactory performance records in Medicare operations. EDSF was the only bidder that was not already a Medicare carrier though it had extensive Medicare experience as the nation's largest data processing subcontractor on Medicare contracts. In this setting, it was virtually impossible for HCFA to select a firm that was incapable of performing the required work. HCFA's task in evaluating the quality of technical proposals was one of identifying the bidder that was likely to be the most efficient at starting up a new operation and successfully processing claims thereafter.

HCFA's method of scoring proposals has weaknesses in detecting relatively subtle differences across bidders in their systems' efficiency and workability. This problem stems from using a scoring system that records the presence of required technical information but which makes little attempt to ask the proposal reviewer to form a summative, qualitative judgement about its merit relative to accepted industry norms. Technical experts on the review panel are thus not used to their full advantage and the government ends up placing too much weight on minor details.

HCFA's current scoring system could be strengthened by adopting some approaches recently taken by the Defense Department in its Civilian Health and Medical Program of the Uniform Services (CHAMPUS) program. The CHAMPUS program currently is awarding competitive fixed price contracts for medical claims processing. Proposals for CHAMPUS claims processing are now being evaluated with a new system that calls for summative judgements by technical reviewers. This new system was developed after a scoring method much like the one now used by HCFA proved to be unsatisfactory for CHAMPUS.

Portions of this system would be of value to HCFA and they could be easily added to its present system.

- The effectiveness of program administration can be improved by further consolidation of territories and continuation of toll-free telephone service.

There are very clear indications that the efficiency of carrier operations is related to size of territory and workload. Much of the variation in cost per claim which has been observed across carriers could be removed by merging small territories. Our results show that costs in territories with fewer than two million claims per year are generally higher than in areas where carrier workloads are higher.

The survey of beneficiaries and providers shows that the toll-free telephone service is highly valued among a small segment of the program's clients. This form of communication service appears to be much more cost effective than "walk-in" facilities for the Medicare program.

- HCFA's internal administrative costs for the competitive fixed price carrier experiments were higher than its costs for equivalent negotiated cost reimbursed contracts. However, HCFA's higher costs were very favorably offset by decreased payments to carriers. Furthermore, HCFA's internal costs are likely to decrease in future competitions as its methods of procuring contracts mature.

Estimates provided by HCFA regional and central offices indicate that HCFA spent approximately $2.5 million for implementing and monitoring the first four fixed price contracts beyond what it would have spent for equivalent cost reimbursed contracts. Our lowest projection of HCFA's total savings in carrier administrative costs for the fixed price experiments is $45.4 million. It appears that HCFA's administrative costs for promoting competition were highly cost effective on a ratio of about $18 saved in payments to carriers for every additional administrative $1 spent by HCFA.

Moreover, with the introduction of uniform national procedure coding in Medicare and the adoption of CPEP as the basis for monitoring the performance of fixed price contractors, HCFA's administrative cost to implement and monitor fixed price contracts should decrease in the future.

Recommendations

Abt Associates' contract with HCFA requires that we present recommendations based upon our evaluation of the Part B fixed price experiments. The following recommendations are accordingly offered.

> Recommendation 1: The practice of competitive Medicare contracting should be expanded. HCFA's system of contractor performance evaluation with liquidated damage payments for poor performance should continue to be an integral part of competitive contracting. Cost reimbursed contracts without profit should be phased out in favor of contracts which allow a profit incentive as a reward for risk bearing and innovation.

This recommendation is based on our finding that the fixed price experiments have been successful at achieving lower claims processing costs for the Medicare program. Steady improvements in HCFA's system for monitoring carriers coupled with increased experience in monitoring carrier transitions make it likely that HCFA could successfully undertake a wider program of competitive fixed price contracting.

In commenting on the draft of this report, HCFA's Bureau of Program Operations (BPO) expressed concern about (1) the effectiveness of a program of competitive contracting versus HCFA's current program of negotiated contracts, and (2) the desirability of fixed price contracts relative to cost reimbursed contracts. HCFA BPO remarked that it "can achieve the same results on a national basis by vigorously negotiating cost contracts, while treating fixed price contracting authority mostly as a tool to be used in situations where it is absolutely needed."

Abt Associates has serious doubts that HCFA could consistently achieve as good a deal by negotiation as by competition. Two considerations here are relevant: (1) the credibility of HCFA's threat that it is prepared in every instance to select a new contractor to replace an incumbent at the time when annual contract renewals occur, and (2) the precision of information which is available to HCFA for determining how far it should go in negotiating for lower costs or better performance. On the first point, we note that HCFA has terminated half a dozen high cost Part B contractors over the life of the Medicare program, thus giving credibility to threats of contract termination. However, the expectation of most contractors, based upon the history of the Medicare program, is that their annual contract will be renewed if their performance and cost are not seriously out of line with other contractors. Under these circumstances, the burden of proof that a contractor has not offered HCFA the most favorable possible offer tends to implicitly lie on HCFA. An entirely different negotiating atmosphere is present, however, when HCFA has gone to the trouble of issuing an RFP for a contract that will run for several years. Under these circumstances, it is abundantly clear to an incumbent that its contract will not be renewed if it does not make the best offer as measured against the other offers that HCFA has before it.

On the second point, it is not clear that HCFA would ever have enough information to assure that it can consistently negotiate to minimize contractor costs. Cost data available to HCFA is always historical data from which it is difficult to predict either potential cost reductions (due to technical innovations and improved productivity) or potential cost increases (due to local or national inflation). At best, HCFA can only make imperfect statistical cost comparisons among carriers to determine the extent to which cost variation cannot be explained by uncontrollable factors such as prevailing regional wages, claims volume, the assignment rate, etc. In contrast, contractors are much more likely to know about inefficiencies in their own operations which could be removed. More importantly, contractors have a much better idea of how they could improve their operation by utilizing new technology or by moving their operation to a lower cost area.

These arguments do not deny that the government might occasionally be able to achieve a better contract with vigorous negotiation than with competition. For example, there may be circumstances where a well-entrenched incumbent has little fear of any likely challenger. There may also be occasions where the government could obtain a good negotiated offer because one party labors under some lack of information. This latter situation is certainly not desirable or likely to persist. The former situation most certainly did not occur in the first round of competitions we observed, though it may occur from time to time, particularly in recompetition situations. But again, this situation cannot persist, as high margin competitive contracts will most likely attract serious bids from bidders. Consequently, the perceptions of the overall advantage of competitive contracts is directed at the issue of the best long-term program-wide strategy, rather than at the questions of which strategy might serve best in any single instance.

Our recommendation that fixed price contracts should be favored over cost contracts also requires comment. The government has several types of contracts which it might choose to employ. These include cost reimbursed (CR), cost-plus-fixed-fee (CPFF), and fixed price (FP) types of contracts. As a rule of thumb, cost reimbursed contracts are to be preferred where work is subject to uncertainty about what needs to be done and what resources can be best used to do it. Fixed price contracts are preferrable where the scope of work is well defined and the level of effort can be predicted with confidence. Cost-plus-fixed-fee contracts lie between these two extremes of uncertainty.

Under current legislation, only the CR contract is allowed for Medicare contractors (except for experimental contracts). This restriction reflects the anticipation of the enabling legislation that the scope of work in Medicare claims processing would be subject to many uncertainties. These uncertainties were anticipated to extend beyond the inveitable turmoil of the first few years of starting up the Medicare program. Medicare carriers and intermediaries were expected to exercise initiative as they took their experience in health care claims adjustment and applied it to the Medicare program. The historical record shows nonetheless that the founding legislation underestimated the complexity of Medicare claims processing and overestimated the ability of the nation's insurance companies to adapt their private health insurance claims processing operations to Medicare. HCFA, the Medicare intermediaries and carriers, and several data processing subcontractors worked in partnership for a decade to develop the sophisticated system of claims processing which are in use today. The need for cost reimbursed contracts is thus amply justified by the early history of Medicare.

Our recommendation for phasing out nonprofit cost reimbursed contracts is based upon the maturity of the Medicare program and the now well defined nature of its its claims processing activity.

Under current circumstances, improvements in Medicare productivity and quality of service will depend on the willingness of contractors to search for incremental improvements in the way they operate. This is always a painful process. Some executives and production workers will have to be fired while others are hired. Systems will have to be scrutinized and improved. Operating departments may have to move to different buildings or even different cities. Few corporations or individuals are willing to go through all this grief in return for a handshake, a plaque, and lower operating revenue. A profit incentive is a necessary reward for the pain of undertaking these marginal improvements.

Abt Associates believes that a fixed price contract (with appropriate quality monitoring and liquidated damage schedules) offers clearer incentives for improved performance than does a cost reimbursed contract. The fundamental virtue of the fixed price contract is that the contractor is encouraged to look for improvements throughout the life of the contract and each improvement that reduces cost contributes to profit. Over the long run, the benefits of these improvements will be passed on to the government when the contractor submits a bid for contract renewal.

A second-best alternative would be for the government to award cost-plus-fixed-fee (CPFF) contracts. Competition to win this contract can be expected to promote a search for improved performance during the period of proposal writing. However, once a contract is won, the contractor's profit is fixed. This type of contract accordingly creates fewer incentives to search for improved performance although some incentives are present. (There are incentives, for example, to avoid a cost overrun because an overrun will make no contribution to profit, it may hurt the credibility of a contractor's bid on future competitions, and finally the overrun may be disallowed by the government as a legitimate cost with the result that the contractor must pay for the overrun out of profit.) The CPFF contract, however, offers no reward for spending less than the initially estimated cost. This feature discourages a contractor from embracing cost reductions during the life of a contract and it tends to promote the stagnation of overhead rates from one contract to the next.

On balance, the CPFF contract seems to offer fewer incentives than does the fixed price contract for the kind of continuing, incremental improvement that the Medicare program will require over the next few years. For this reason, we favor the fixed price contract.

> Recommendation 2: Firms other than health care third party payors should continue to be eligible to compete for Medicare contracts.

Medicare's founding legislation provided that the administration of the program was to be carried out by contracting with private organizations already engaged as third party payors for health care services. This provision reflected the belief of Congress that the administration of Medicare required the particular expertise of organizations such as commercial insurance companies, Blue Cross and Blue Shield plans. Medicare contractors were expected to examine claims for their medical necessity, determine the allowed payment, investigate fraud and abuse, and deal with inquiries from beneficiaries and providers. Experience as a third party payor was viewed as essential for these functions.

In the Medicare fixed price experiments, HCFA relaxed the requirements for Medicare contracting so that any financially sound firm could compete for an experimental fixed price contract. HCFA's rationale was to promote competition and allow firms with other skills, such as data processing and telecommunications, to serve as prime contractors.

The fixed price experiments to date have attracted bids from only one firm other than incumbent Medicare carriers. That firm, EDSF, was already a major subcontractor for Medicare EDP servcies. Consequently, little can be learned from the fixed price experiments about the willingness of noncarriers to compete for Medicare contracts or their likely success as prime contractors.

Abt Associates' above recommendation is based on the more general consideration that trends in the technology of communications and claims processing make it likely that innovative proposals could come from firms in the communications, banking, brokerage, or Medicaid claims processing industries.

The history of Medicare also shows that data processing firms have made an important contribution to the program. While we recognize that a Medicare contractor's responsibilities involve much more than data processing, it is quite conceivable that future contracts could be configured with a data processing firm as prime contractor and health care third party payors as subcontractors. Such an arrangement would be especially feasible if some territories are consolidated so that all data processing is performed at one site while provider and beneficiary relations and medical necessity review remain functions of local Blue Shield plans or commercial insurors. We are not necessarily recommending this particular configuration, only pointing out that it is a possibility that for which Medicare regulations should make provision.

A brief comment is also needed on the lack of bids from noncarriers during the experiments. To explore this issue, Abt Associates identified a few telecommunications and data processing firms that appeared to be potential competitors for Medicare contracting. Senior managers at these firms were interviewed at length about their awareness of the fixed price experiments and their willingness to compete in future Medicare competitions. While no statistical predictions can be drawn from our highly selective sample, our interviews did reveal that the fixed price experiments did not offer a sufficiently large or stable market to justify an investment in Medicare contracting. The episodic nature of the experiments prevented them from being a true test of how competiton might evolve in the longer run.

A further reason why we believe that HCFA should allow nontraditional firms to compete as carriers is that commercial insurance companies appear to be unwilling to compete in terms of price against Blue Shield plans and they are willing to depart from this market in the long run. While the available evidence does not warrant the inference that the Blues would come either to dominate a competed Medicare market (no such trend is apparent in competitive CHAMPUS or Medicaid markets) or to collude in terms of price, HCFA would be prudent to encourage competition from nontraditional firms.

Blue Shield plans have now won three out of four Part B fixed price competitions and, in addition, they have been successful in winning other competitive Medicare contracts in Colorado, Kentucky, Puerto Rico, and Missouri. Commercial insurance companies have competed actively in these procurements and they have lost in every case. The commercials have consistently offered proposals which received good marks for technical quality and experience but which failed to offer a sufficiently low price. This outcome reflects the committment of commercials to earn a rate of return on any competitive Medicare business which they view as equivalent (after risk adjustment) to earnings on other business opportunities. Commercials have repeatedly told us that they will not "subsidize" Medicare ventures. In context, this means that they expect competitive Medicare work to earn profits after paying for a proportionate share of corporate overhead. Blues, in contrast, appear to be willing to accept relatively small contributions to general overhead as long as their Medicare contracts are able to cover direct operating expenses. In general discussions of the Medicare competitions, Blues and commercials appear to disagree over where "direct operating costs" end and "general corporate overhead" begins, but it is clear that Blues so far have been willing to accept less money for Medicare work than have commercials.

Firms which specialize in Medicaid and CHAMPUS work, however, have indicated their willingness to compete for Medicare work. Further, claims processing competitions in these two markets have displayed steadily decreasing bids. Again, these factors all suggest that the government should not limit the field of potential competitors to traditional carriers.

> Recommendation 3: HCFA should continue its efforts at consolidating inefficient small carriers into larger territories. Where possible, this should be done apart from the process of opening territories to competition.

Our analysis of carrier administrative costs revealed that carriers with claims volumes below two million claims per year tend to have higher administrative cost. HCFA has recently consolidated small carriers in South

Dakota, Delaware, Washington, D.C., and Milwaukee with larger neighboring carriers.

Our case studies of the consolidation process show that a flexible timetable is a key feature to avoiding service disruptions. Occasionally it is necessary to run two incompatible systems in parallel while unexpected bugs are worked out. The unpredictable expenses and timetables of a consolidation make it an unattractive risk to include in a fixed price procurement. The Illinois experiment provides a striking example of an unsuccessful consolidation coupled to a fixed price competition. The upstate New York experiment, in contrast, was surprisingly successful at consolidating three territories. Prudence suggests that HCFA should first consolidate small territories using traditional cost reimbursed methods. After consolidation, the combined territory can be opened to competition.

> Recommendation 4: HCFA should adopt a uniform system of procedure codes for the Medicare program.

Procedure codes are an indexing system for classifying medical services and related therapeutic activities. The Medicare program has historically allowed each carrier to develop its own coding system (usually an adaptation from its private insurance business) subject to certain general guidelines. HCFA has only recently begun to implement a uniform national Medicare coding system.

Our examination of the fixed price experiments and various carrier consolidations reveals that procedure code incompatibilities are a major cause of disruptions in service whenever there is a change in carriers. Adoption of a uniform coding system would make it more feasible to recompete territories without disruption. A uniform national coding system would also allow for a more uniform and effective system for monitoring benefit payments.

> Recommendation 5: Any future fixed price competitions should continue to select carriers on the basis of price, experience, and technical quality. Price alone should not determine an award.

Our analysis of carrier costs reveals that carriers who spend more on claims processing often exercise better control over program benefit payments. This apparently occurs because relatively small additional expenditures on utilization review functions are able to spot fraud and abuse in the program.

> Recommendation 6: In future competitions, there should be no restriction that a carrier locate its principle site of operations within the competed territory.

In the New York, Illinois, and Maine II competitions, competitors were required to establish their principal site of operations (exclusive of computer mainframe) within the competed geographic territories. This restriction did not apply in the Maine I experiment.

Our examination of carrier operations revealed no operational advantage to establishing the major clerical functions (claims receipt, data entry, check printing) within a service area. Significant economies could be achieved, however, if a carrier could serve several territories from a single location. We also found that clerical production staff were almost exclusively employed to process mailed claims and toll-free telephone inquiries. Walk-in service occupies only a tiny fraction of the staff.

An additional consideration is that vigorous competition for fixed price contracts is unlikely to continue if potential bidders must bear the risks of physically moving into a new territory every time they win a bid. Experience in the CHAMPUS program suggests that vigorous competition occurs when fiscal intermediaries have an opportunity to expand their operations by annexing a new territory into an existing operation. The Maine II experiment further illustrates this potential problem. Final offers in this competition were received from only two carriers (the incumbent and a challenger) who both offered bids that were higher than would have been expected from historical trends. The experiment thus illustrates the importance (at least for small territories) of allowing bidders the option of conducting most of their operations from established sites outside the territory.

Our recommendation is not meant to imply that carriers should be discouraged from maintaining a field office(s) in their territory or that they should avoid face-to-face informational meetings with provider and beneficiary groups. These functions are important but they require only that a a small professional relations staff be maintained within a territory.

> Recommendation 7: Future competitions should continue to use liquidated damages and incentive payments as tools for encouraging good performance. HCFA should experiment with liquidated damage formulas which are more sensitive to volume related measures of performance.

In setting liquidated damages for the fixed price contracts, HCFA sought to balance two competing considerations. First it wished to create a disincentive for poor performance which was sufficiently strong so that contractors would strive to expeditiously correct their shortcomings. Second, it did not wish to set the disincentive at so high a level that reputable firms would be discouraged from bidding. HCFA also faced the constraint of federal procurement regulations which forbids punative penalties but allows liquidated damages for the value of work not adequately performed.

HCFA's method of assessing liquidated damages was gradually refined over the course of the experiments. The Maine I, Illinois, and upstate New York experiments were burdened with excessively complicated formulas where the assessment of damages depended in part on a carrier's performance relative to other carriers. These formulas made it difficult for the fixed price carriers to predict whether or not they would pass certain performance standards. The Maine II contract corrected this problem by applying absolute standards of performance. In addition, the Maine II formula allowed liquidated damages to vary in proportion to the degree of failure: small damages were collected if the contractor almost passed the standard and larger damages were collected if there was a serious failure.

HCFA needs to further refine its liquidated damage formula to be more sensitive to the problems which are generated by claims backlogs, especially at the start of a contract period. This is desirable because backlogs generate their own problems such as duplicate bills and increased inquiries from beneficiaries and providers. Our understanding of the federal procurement regulations is that a damage payment formula related to claims volume backlog would be a reasonable forecast of just compensation in light of the chaos which backlogs can create. A further consideration is that a volume related formula would further encourage a contractor to spend more resources on solving a serious backlog problem.

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Abbreviations

ACER	Annual Contractor Evaluation Report
AMA	American Medical Association
AMS	Advanced Medicare Systems (a trademark of EDSF)
BCBSM	Blue Cross Blue Shield of Minnesota
BPO	Bureau of Program Operations, HCFA
BSM	Blue Shield of Massachusetts
BSRI	Blue Shield of Rhode Island
BSWNY	Blue Shield of Western New York
CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
CNA	Continental Casualty Company
CPEP	Contractor Performance Evaluation Plan
CPT-4	Current Procedural Terminology, Version 4
CRVS	California Relative Value Study
DHHS	Department of Health and Human Services
EDSF	Electronic Data Systems Federal
EOMB	Explanation of Medicare Benefits
FTE	Full Time Equivalent
FY	Fiscal Year
GAO	Government Accounting Office
GVMC	Genesee Valley Medical Care
HCFA	Health Care Financing Administration
HCSC	Health Care Services Corporation
HIC	Health Insurance Claim
ME BC/BS	Maine Blue Cross Blue Shield
NABSP	National Association of Blue Shield Plans
NH/VT BC/BS	New Hampshire/Vermont Blue Cross Blue Shield
PBS	Pennsylvania Blue Shield
PRU	Prudential Insurance Company
RFP	Request for Proposal
RO	Regional Office
SSA	Social Security Administration
UM	Union Mutual
WPS	Wisconsin Physicians' Service

Acknowledgements

Abt Associates wishes to acknowledge the assistance of many individuals and organizations in making this study possible. Within HCFA, this study was administered initially by the Office of Information Planning and Development, Bureau of Data Management and Strategy (OIPD DDMS). Glenn Martin was the initial Project Officer with Michael Knefley serving as Associate Project Officer. Both individuals played a key role in acquiring data for the study and in launching the case study of the three experiment areas.

An administrative reorganization caused this study to later be administered by the Office of Research and Demonstrations (ORD). Dr. Ronald J. Vogel served as ORD's Project Officer during the development of AAI's research design. He was succeeded by Dr. Brad Perry, who was in charge of the project during its most intensive phase of telephone surveys and report writing. Abt Associates wishes to acknowledge both the intellectual guidance and administrative assistance of each of these project officers.

Throughout the study, AAI received extensive assistance from HCFA's Bureau of Program Operations. The Bureau was equally valuable as a repository of historical information on the cost and performance of the Medicare program and on HCFA's rationale for the design of the fixed price contracts. HCFA regional offices in Boston, New York, Chicago, Kansas City, Los Angeles, and Philadelphia also provided valuable assistance in arranging for AAI to interview carriers and to examine regional office files.

Several Part B carriers cooperated extensively with AAI's study. In all cases, this cooperation required senior executives to spend many hours in extensive interviews about their organization's role in the Medicare program. The carriers also were asked to provide detailed information on their day-to-day operations.

We acknowledge in particular the cooperation of the following organizations.

Aetna Insurance Company, Hartford, Connecticut
Blue Cross/Blue Shield Associations, Chicago, Illinois
Blue Cross/Blue Shield of Minnesota, St. Paul, Minnesota
Blue Shield of Massachusetts, Boston, Massachusetts and Biddeford, Maine
Blue Shield of North Dakota, Fargo, North Dakota
Blue Shield of Rhode Island, Providence, Rhode Island
Blue Shield of Western New York, Buffalo and Binghamton, New York
Bradford National Corporation, New York, New York
Connecticut General Insurance Company, Wallingford, Connecticut
Continental Casualty Company, Chicago, Illinois
Electronic Data Systems Federal, Des Plaines, Illinois
Genesee Valley Medical Care, Rochester, New York
Health Care Services Corporation, Chicago, Illinois
Maine Blue Cross Blue Shield, Portland, Maine
Mutual of Omaha, Omaha, Nebraska
Mutual Medical Insurance, Indianapolis, Indiana
New Hampshire/Vermont Blue Cross Blue Shield, Concord, New Hampshire
Nationwide Mutual Insurance Company, Columbus, Ohio
Pennsylvania Blue Shield, Camp Hill, Pennsylvania
Purdential Insurance Company, Millville, New York
Transamerica Occidental Life Insurance Company, Los Angeles, California
Union Mutual, Portland, Maine
U.S. Department of Defense, OCHAMPUS, Aurora, Colorado
U.S. General Accounting Office, Washington, D.C.
Wisconsin Physicians' Service, Madison, Wisconsin

1.0 HISTORY AND ADMINISTRATIVE LESSONS FROM THE EXPERIMENTS

The Medicare program was enacted by Congress in 1965 to help the elderly and later the disabled pay for the high cost of health care. The program is administered by the Health Care Financing Administration (HCFA) through contracting arrangements with insurance companies and other organizations. Contracting organizations administering Medicare Part A (hospital insurance) and Medicare Part B (medical insurance) are known as intermediaries and carriers respectively.

Throughout the first decade of the Medicare program, HCFA entered into cost reimbursement contracts with intermediaries and carriers whereby their reasonable costs for administering the program are reimbursed, resulting in neither a profit nor loss for these organizations.

In the early 1970s, as a result of congressional action and other studies, HCFA began to take steps toward a more competitive form of contracting by seeking proposals from Part B carriers to participate voluntarily in negotiated fixed rate contracts. Under these contracts, carriers would be paid a fixed dollar amount for each claim processed. Although serious discussions were held with several carriers, only one fixed rate contract was eventually negotiated by HCFA. This involved a two year experiment with Blue Shield of Maryland in 1976.

In the spring of 1977, HCFA began a new phase of contracting experiments which departed sharply from its initial attempts at negotiated fixed rate contracts. Under these experiments, intermediaries and carriers enter into a multi-year fixed price contract for their total costs of administering the program. The main incentive offered by these contracts is the right to retain as profit any residual contract payments which exceed the contractor's actual administrative costs. In addition, some of the experiments allow the contractor to earn incentive payments for exceptional performance. The experimental contracts are written and executed in a manner such that the contractor assumes various risks; for instance, the contractors are "at risk" for variations in claims volume over the term of the contract, input price inflation, costs of supplies and equipment, utilities, taxes, and general variation in productivity.

To ensure that the fixed price contractors would not decrease their levels of service to maximize profits, the fixed price contracts specify a variety of performance standards. The contractor is assessed liquidated damages for each standard failed.

This is the final report of a study examining the Medicare Part B fixed price contracting experiments which are ongoing in Maine and Illinois, and one which was recently concluded in upstate New York.

Overview of the Study

The primary objective of this final report is to summarize evidence of the effectiveness of the three fixed price experiments. Three companion case study reports examine the details of the experiments in Maine, Illinois, and upstate New York.[1] Each of these case studies also examines the differences between experimental contractors and other carriers in the areas of program costs, administrative costs, and carrier performance. The main focus of the analysis presented in this final report is to determine whether the fixed price contracting alternative reduces costs while still maintaining acceptable standards of performance. In addition, because HCFA had little prior experience in selecting carriers through the competitive bidding process, issues surrounding the procurement process are of interest. This report discusses the competitive process by which the contracts were awarded including HCFA´s experimental procurement policies, the requirements of the Request for Proposal (RFP) to which the bidders responded, the evaluation factors for award, and the provisions of the final contracts.

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[1] Stephen T. Mennemeyer, Gary Gaumer, Gregory Lambertson, and Leo Reardon, Evaluation Report for the Illinois Part B Fixed Price Medicare Contract Experiment, Abt Associates publication number 82-34, Volume I, Abt Associates, Cambridge, Massachusetts, March 1983. Stephen T. Mennemeyer, Leo Reardon, and David Kidder, Evaluation Report for the Upstate New York Part B Fixed Price Medicare Contract Experiment, Abt Associates publication number 82-34, Volume II; Abt Associates, Cambridge, Massachusetts, March 1983. Stephen T. Mennemeyer, Vince Scardino, and Kathleen Calore, Evaluation Report for the Maine Part B Fixed Price Medicare Contract Experiment, Abt Associates publication number 82-34, Volume III, Abt Associates, Cambridge, Massachusetts, March 1983.

Organization of this Report

This report on the fixed price contracting experiments has been divided into five chapters. The remainder of this chapter discusses the administration of the experiments including the procurement process. Findings of our case studies are also briefly summarized. Chapter 2.0 analyses the cost performance of Medicare carriers and their patterns of benefit payments using econometric methods. Chapter 3.0 discusses the findings of a telephone survey of providers which was conducted to learn about their satisfaction in dealing with either fixed price or traditional carriers. Chapter 4.0 presents the results of a telephone survey of beneficiaries which was conducted to determine if the experiences of persons served by fixed price carriers differed substantially from the experiences of persons served by traditional carriers. Finally, Chapter 5.0 examines the clarity and level of reading difficulty in correspondence exchanged by Medicare carriers, beneficiaries, and providers.

1.1 Background on Medicare Contracting

Title XVIII of the Social Security Act authorized DHHS[1] to enter into contracts with organizations already acting as third party payors for health care to administer the Medicare program under arrangements which would result in neither profit nor loss to the contractor. These cost reimbursement contracts were awarded without competition at the discretion of DHHS. This method was considered necessary at the beginning of Medicare to provide for rapid and efficient implementation of the program. Third party payors were designated to be the government's contractors because the government wished to draw upon the administrative experience of the private insurance industry and it wished to avoid creating a large bureaucracy to process claims under the Medicare program.

As the Medicare program matured, the government's focus began to shift from its original concentration on implementing the program to issues of administrative costs and the quality of contractor performance. In 1970, the staff of the Senate Finance Committee studied the administration of Medicare and noted a considerable variance in performance and costs among contractors. It stated that performance variations were so great as to justify contract terminations and suggested that Part B carriers might be compensated on a basis other than cost reimbursement, such as incentive payments tied to performance or to cost per claim.

In October 1972, Public Law 92-603 was enacted. It authorized DHHS to perform experiments in Medicare contracting via fixed price or incentive arrangements with contractors. During 1973 and 1974, the Perkins Committee (Advisory Committee on Medicare Administration, Contracting, and

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[1] In this report all references that properly belong to the Department of Health, Education and Welfare are attributed to its successor.

Subcontracting) studied Part B contracting arrangements and concluded that the overall administrative efficiency of the Medicare program could be improved by providing competitive incentives to encourage improved contractor performance. A study by the General Accounting Office (GAO) (1979)[1] has also suggested that a more competitive contracting environment, a reduction in the number of carriers, and an enlargement of the average size of carrier territories would result in lower Part B administrative costs.

In 1974, HCFA began to take steps toward a more competitive form of contracting by seeking proposals from Part B carriers to undertake fixed rate reimbursement contracts on a voluntary basis. Under these contracts carriers would be paid a fixed dollar amount for each claim processed. Serious negotiations toward such contracts were undertaken with carriers in California, Maryland, Texas, Wisconsin, Rhode Island, and western New York. One experimental fixed rate contract was eventually undertaken with Blue Shield of Maryland. Negotiations with the other carriers, however, were unsuccessful in part because the carriers could see no benefit to themselves from voluntarily accepting the risks of such contracts.

While fixed rate contracts were conceptually a striking change from traditional cost reimbursed contracts, HCFA was hampered by several administrative weaknesses in attempting to negotiate such contracts. Due to its founding legislative mandate to enter into cost reimbursed non-competed contracts, HCFA never before had to design a system of performance monitoring which was coupled with financial penalties for poor service. HCFA also had no experience in negotiating fixed rates of payment. Furthermore, it faced a technical problem of how to measure the claims count so as to prevent a carrier from manipulating the count to increase contract payments.

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[1] General Accounting Office, More Can Be Done to Achieve Greater Efficiency in Contracting for Medicare Claims Processing, June 1979.

In the spring of 1977, HCFA began a new phase of fixed price experiments which departed sharply from its initial attempts at negotiated fixed rate contracts. The new experiments involved (1) a fixed payment for all contract administration with few opportunities for adjustments; (2) outright competition to be the carrier for a particular territory; (3) monitoring plans to measure contractor performance; (4) liquidated damage assessments (i.e. penalty payments) for inadequate performance; and (5) enhanced requirements for beneficiary services in the form of toll-free telephone service. Incentive payments for superior performance have been added to some of the more recent fixed price contracts.

In exercising its legislative authority to undertake fixed price contracting experiments, HCFA has attempted to test the viability of fixed price contracts in varied settings; the first fixed price contracts were in the Part B programs in Maine, upstate New York, and Illinois. The Maine experiment was recompeted in 1981. The Illinois experiment was recompeted in 1982-1983 with the result that a former incumbent (the Blue Shield plan for Illinois) won the competition. The upstate New York experiment has now ended and the contract has reverted to a cost reimbursed contract. HCFA's second wave of fixed price contracting experiments was directed at the Part A program. There are currently two Part A experiments, one in New York and the other in Missouri and the area of metropolitan Kansas City. In a final wave of experiments, HCFA undertook fixed price competitions for the combined administration of Part A and Part B. Experiments were attempted in Puerto Rico and Colorado. In Puerto Rico, HCFA eventually decided not to award a fixed price contract due to an inadequate number of bids; a cost contract was negotiated with the incumbent. In Colorado, a contract was awarded to Blue Cross and Blue Shield of Colorado in December of 1982. Table 1.1 lists the various experiments and their current status.

It should be noted that HCFA's schedule of experiments has been changed several times due to litigation, particularly on the Part A side of the program. The frequency of lawsuits has affected both the timetable and control of experiments and HCFA's methods of conducting competitions and making awards. An experiment consolidating the Part A and B workloads in Colorado, Utah, and Wyoming was challenged in court and delayed over two years. Although HCFA subsequently won on appeal, it eventually decided to bid only the combined A and B workload in Colorado rather than the original three states. Similarly, the Missouri experiment was delayed by litigation after the release of the RFP and had to be rescheduled by HCFA.

Paralleling HCFA's experiments have been two other examples of fixed price or fixed rate contracting in government health programs. One example occurs in the Defense Department's Civilian Health and Medical Program of the Uniform Services (CHAMPUS) program. The other occurs in the Medicaid program.

CHAMPUS provides insurance for medical care provided by civilian sources to dependents of active duty members, retirees and their dependents, and dependents of deceased members of the uniformed services. The CHAMPUS program is administered from Denver, Colorado, by the Office for Civilian Health and Medical Program of Uniform Services (OCHAMPUS), which is under the policy guidance and operational direction of the assistant secretary of defense (health affairs). CHAMPUS contractors, called fiscal agents,

Table 1.1: History of Medicare Contracting Experiments Concluded or in Progress

Begin Date of Experimental Contract (Full Operational Period)	Service Area	Experimental Contractor	Type of Procurement	Experiment Ending Date and/or Current Status
12/1/76	Maryland (excluding parts of Metropolitan Washington, D.C.) (Part B)	Maryland Blue Shield	Negotiated Fixed Rate	12/1/78[1]
12/1/77	Maine (Part B)	Blue Shield of Massachusetts	Competitive Fixed Price	9/30/84[2]
7/1/79	Illinois (Part B)	EDS Federal, Inc.	Competitive Fixed Price	9/30/83[3]
4/2/84	Illinois (Part B)	Health Care Services Corp. (Illinois Blue Shield)	Fixed Price	3/31/87
10/1/79	Upstate New York (Part B)	Blue Shield of Western New York	Competitive Fixed Price	9/30/82[4]
3/1/81	New York State (Part A)	Blue Cross/ Blue Shield of Greater New York	Negotiated Fixed Price	4/30/84
7/1/81	Missouri and Metropolitan Kansas City (Part A)	Blue Cross of St. Louis	Competitive Fixed Price	6/30/84
4/29/82[5]	Puerto Rico and Virgin Islands (Parts A & B)	Not Awarded	Competitive Fixed Price	7/9/82[6]
8/9/82[5]	Colorado (Parts A & B)	Blue Cross and Blue Shield of Colorado	Competitive Fixed Price	10/29/82 (HCFA evaluation in progress)

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[1] After 1978, contract reverted to cost reimbursement with Maryland Blue Shield.

[2] Original contract period was 12/1/77 through 9/30/81. Contract was recompeted in 1981 with Blue Shield of Massachusetts receiving the award. Present contract period is 10/1/81 through 9/30/84.

[3] Contract was recompeted by HCFA in October 1982, with proposals due in January 1983. Contract award was July 13, 1983.

[4] Original contract period was 10/1/79 through 9/30/82. Contract was not recompeted; HCFA entered into a cost reimbursement contract with Blue Shield of Western New York effective 10/1/82.

[5] Date of issue of RFP.

[6] Only one proposal was received and HCFA decided not to award a fixed price contract. Contracts with existing cost reimbursed contractors were extended.

perform functions similar to Medicare intermediaries and carriers. In fiscal year 1978, these fiscal agents processed 3.7 million claims with total administrative costs of $21.5 million.

Prior to 1976, the CHAMPUS program had awarded contracts to its fiscal intermediaries on a noncompetitive cost reimbursement basis. In 1976, it switched to a competitive fixed rate per claim contracting methodology. GAO studied the 11 fixed rate contracts (covering 20 states) originally awarded by OCHAMPUS and concluded that performance had not been good.[1] OCHAMPUS officials believed that some contractors, in an effort to be competitive, submitted unrealistic price proposals and were losing money on the contracts. Contractors who had no prior CHAMPUS experience generally had difficulty and left the program or were terminated. Five contractors, involving 15 states, were terminated at the request of the contractor, OCHAMPUS, or by mutual agreement with poor performance cited as the reason in all cases.

Although the performance of most CHAMPUS contractors today is considered good, the fact remains that the initial switch from cost reimbursement to fixed price contracts in OCHAMPUS produced major disruptions in services to beneficiaries and providers. However, the adoption of competitive fixed price contracts was accompanied by an appreciable reduction in CHAMPUS administrative cost as high cost fiscal agents were removed from the program.

Similar contracts in the Medicaid program have not shown conclusively that fixed price competitive contracts resulted in lower costs and improved performance. GAO found however that poor award and contracting procedures were the major source of problems in states which had awarded fixed price competitive Medicaid contracts. Neither competition nor fixed price were themselves causes of poor performance.

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[1] "More Can Be Done to Achieve Greater Efficiency in Contracting for Medicare Claims Processing," GAO, June 29, 1979.

1.2 Description of the Fixed Price Experiments

Under the HCFA Part B experiments noted in Table 1.1, intermediaries and carriers enter into a multi-year fixed price contract for administering the program. It should be emphasized that the fixed price agreement covers only the firm's administrative costs; benefit payments to beneficiaries and providers are paid from an entirely separate set of funds not subject to a fixed price limitation.

Firms in the fixed price experiments compete by bidding a total price to conduct all claims processing activities for three to five years. The main incentive offered by these contracts is the right to retain as profit any residual contract payments which exceed the actual cost of claims processing. In addition, some of the experiments allow the contractor to earn incentive payments for exceptionally accurate and speedy claims processing. The experimental contracts are written and executed in a manner such that the contractor assumes various risks; for instance, the contractors are "at risk" for variations in claims volume over the period of the contract, input price inflation, costs of supplies and equipment, utilities, and taxes, and general variation in productivity. However, such government-initiated cost increases as postage costs and social security taxes were included as provisions for adjustment in some of the fixed price contracts.[1] The most important risk arises from unanticipated variation in claim volume or workload. By agreeing to administer the program for a total fixed price, the carriers stand to lose if claim volume rises beyond the budget level.

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[1] The fixed price approach to contracting for products/services can assume widely different characteristics. For example, fixed price contracts can be executed such that the contractor is limited to a fixed price per claim (as is the case with the CHAMPUS contracts), and thus is not held liable for estimating the total volume of claims. Similarly, a fixed price contract for administering the Medicare Part B program may specifically (footnote continued on next page)

To ensure that the fixed price contractors would not decrease their levels of service to maximize residual profits, the fixed price contracts specify a variety of performance standards. The contractor is assessed liquidated damages for each standard failed.[1] Some standards are "workload" related standards which specify absolute minimums of performance (e.g., 75 percent of all claims must be paid within 15 days) or relative minimums (e.g., error rates cannot be greater than the median error rate for all other carriers); others are "functional" standards of performance (e.g., telephone lines must be sufficient to assure that 60 percent of beneficiary calls are answered within three rings). While these standards have varied somewhat among the experiments, the contractor's performance is generally evaluated on a quarterly basis.

(footnote continued from previous page)
exclude such unavoidable changes in costs as postage increases, federal taxes, or social security withholding. In principle, contract costs could be limited by changes in the Consumer Price Index or similar economic indicators that are beyond the control of the contractor. However, such limits have not been used in the experiments which HCFA has funded to date.

[1] As a literary convenience, we occassionally use the term "penalty" as a synonym for "liquidated damages" in this report. Technically, the two terms are not equivalent. The Code of Federal Regulations provides for the use of liquidated damages in procurement contracts but notes that a penalty is unenforceable. Liquidated damages may be used only where both (1) the government may reasonably expect to suffer damage if the delivery or performance of work is delinquent, and (2) the amount of the damage is difficult to prove. A liquidated damage schedule is supposed to be set before the start of a contract. The schedule is suppose to be a reasonable forecase of just compensation in the event of a delay. The philosophy of liquidated damages is that they allow the government to recover the value of work that was not performed; they are not punishments. From an economic viewpoint, however, this distinction is unimportant. The economically relevant point is that both penalties and liquidated damages impose a cost which is a disincentive for poor performance. See Code of Federal Regulations, 41 Chapter 1-1.315 and Victorino, Louis D., Fundamentals of Government Contracting, Course Manual, Federal Publications Inc. (1978, no location), F-55 through F-57.

In undertaking the current Medicare fixed price experiments, HCFA sought to obtain claims processing services at a cost that was lower than traditional cost reimbursed contracts. HCFA anticipated that competitive fixed price contracts would create profit and loss incentives that would encourage carriers to find ways to save money. HCFA did not believe that traditional cost reimbursed contracts encouraged the type of careful operational scrutiny that a serious cost reduction program requires. In particular, HCFA expected that competitive fixed price contracts would promote the following responses.

- Gains in Efficiency. Fixed price carriers were expected to search for combinations of labor and other inputs that could perform the required work at lower cost. Increased automation and streamlined production procedures were each expected to play a role in saving money.
- Reductions in Overhead and Joint Costs. Under the pressure of competitive bidding, carriers were expected to make favorable offers wherein the government would end up paying a smaller portion of the corporate overhead and joint costs than it pays under traditional contracts. In effect, carriers were expected to submit bids reflecting their marginal costs of doing Medicare work rather than the average total cost traditionally paid by Medicare.
- Reductions in Input Prices. Fixed price carriers were expected more actively to seek lower wages, rents, and other input prices. Relocation of operations into less expensive rural and suburban areas was anticipated.

All of these activities reflect normal managerial efforts which a firm might reasonably be expected to make in a profit and loss environment. Firms that undertake fixed price contracts could reasonably be expected to gamble on their ability to find internal economies in their operation and to seek lower input prices.

1.3 History and Key Findings of the Maine Experiments

1.3.1 Maine I

The Union Mutual Life Insurance Company (UM) had been the original carrier in Maine since the inception of the Medicare program in 1966.

Operating from its corporate headquarters in Portland, UM serviced an estimated enrollment of 137,750 Part B beneficiaries in fiscal year 1976.

With an annual workload of less than 600,000 claims, UM had one of the lowest claims volumes of any Part B carrier. As was typical of low volume carriers, UM's performance was considerably worse than the national average in terms of its unit cost per claim, its ratio of administrative costs to benefit payments, and its overall productivity. However, the timeliness and quality of UM's claims processing operation indicate that it was an above average performer during most of its last two years as a Medicare carrier.

In 1976, UM notified the government of its intention to withdraw from the Medicare program in order to concentrate its efforts on its private lines of business. UM agreed to administer the Part B program through 1977, thus providing HCFA with sufficient time to select a new carrier.

This gave the government a unique opportunity to gain experience with competitively awarded other than cost reimbursement contracts. HCFA decided to select the new carrier for Maine under its authority to conduct fixed price experiments.

On March 18, 1977, HCFA issued a Request for Proposal (RFP) for a Medicare Part B carrier to serve the state of Maine. Key features of the Maine RFP were the following.

- Type of Contract. HCFA would award a total fixed price contract to include all of the carrier's costs of providing Part B administrative services. The carrier would be obliged to absorb any losses and would retain any profit resulting from the contract.
- Qualifications of Bidders. HCFA required only that the bidder be a financially stable organization in compliance with local licensing and regulatory status. This feature allowed the

participation of firms not previously designated as eligible for participation in the Medicare program.

- Allowance for Adjustments. The RFP provided that the bidder was solely responsible for estimating claims volume during the contract period and that there would not be any price adjustment for volume. Further, no allowances would be made for changes in postage, interest rates, telephone rates, social security taxes, or general inflation.
- Site of Operations. The carrier was required physically to establish only a walk-in site in Maine for beneficiary services. All other claims processing services could be located outside the state.
- Toll-Free Telephone Service. The carrier was to provide toll-free telephone service for all beneficiaries in the state of Maine. The RFP did not explicitly define the level of service which HCFA would require after the award to constitute an adequate level of service. This was the first instance where the Medicare program required carriers to offer toll-free telephone service.
- Liquidated Damages. The carrier would be assessed liquidated damages, i.e., penalty payments, at the rate of .2 percent of the total contract value for each violation of performance standards applied on a quarterly basis.

The first Maine RFP attracted bids from six companies, five of which were already Part B carriers. Table 1.2 lists the organizations which bid on the Maine I contract and their respective performance indicators.

In the Maine I procurement, the proposals submitted were initially screened for responsiveness and then subjected to a formal evaluation in three major areas: the quality of the technical proposal, corporate experience, and price. Each of the three components was weighted according to HCFA's perception of its relative importance to overall carrier performance. Price was weighted to account for 40 percent of the total score, with technical quality and experience weighted equally at 30 percent.

Blue Shield of Massachusetts, although not the lowest bidder in terms of the cost proposal, won the procurement largely on the basis of

Table 1.2: Performance Indicators of Bidders on Maine Procurements

Bidder	Territory	Cost per Claim	Error Occurrence Rate	Payment Deductible Error Rate
Maine I - FY 1977				
BSM	Massachusetts	$3.04	5.9	2.1
NH/VT BC/BS	New Hampshire/ Vermont	2.69	8.6	1.5
Prudential	Georgia	2.89	10.7	2.5
	New Jersey	2.86	7.9	1.7
	North Carolina	2.42	8.9	3.0
ME BC/BS	Maine	*	*	*
Aetna	Arizona/Nevada	3.04	4.5	1.1
	Hawaii	3.32	2.5	0.8
	Oklahoma	3.10	7.4	2.5
	Oregon/Alaska	3.15	5.7	2.2
Incumbent - FY 1976				
Union Mutual	Maine	3.29	6.9	1.5
National Average - FY 1977		2.98	8.7	2.4
Maine II - FY 1980				
BSM (incumbent)		3.07**	7.8	2.0
BSRI	Rhode Island	1.91	3.8	1.5
Prudential	Georgia	2.71	12.7	2.8
	New Jersey	2.49	5.3	1.4
	North Carolina	2.17	13.2	2.0
National Average - FY 1980		2.69	9.1	2.2

* Not applicable since Maine Blue Cross/Blue Shield is not a Part B carrier.

**BSM's unit costs are those reported on HCFA-1616.

corporate experience. Table 1.3 lists the scores achieved by the bidders on the Maine procurements.

The transition and implementation period of the first Maine procurement extended for a five-month period from July 1, 1977 through November 30, 1977. Overall, it was a smooth transition of Part B carriers. This smooth transition resulted from a number of factors. Union Mutual's voluntary withdrawal from the Medicare program probably accounts for its cooperativeness in transferring its responsibilities to Blue Shield of Massachusetts (BSM). BSM, already processing nearly half of all the Part B claims in the New England region, was well qualified to assume carrier responsibilities for the relatively low volume territory. BSM assigned its most experienced staff to the Maine contract, thereby further increasing the likelihood of a smooth transition. Add to these factors such contract requirements as a five month transition period and no requirement to establish all claims processing operations in the state, and the majority of the ingredients for a successful transition/implementation appear to be in place.

This is not to imply that the Maine I transition was without any problems or difficulties. When BSM began to convert Union Mutual's procedure coding system to be compatible with its Massachusetts claims processing operation, it found the task to be far too difficult and time consuming to be accomplished during the period allowed for implementation. BSM and HCFA dropped this conversion effort in favor of adopting UM's procedure coding system with only minor modifications to minimize disruptions in service. In addition, BSM's approach to determining reasonable charges and its application of program guidelines on medical necessity and utilization

Table 1.3: Comparisons of Rank Scores and Prices for the Fixed Price Procurements for the State of Maine

	Evaluation Scores				Total	Unit
Bidder	Technical	Experience	Price	Total	Price*	Price**
Maine I						
BSM	2	1	3	1	$5,285,000	$2.88
NH/VT	3	4	1	2	4,737,492	2.59
Prudential	4	2***	2	3	5,450,000	2.98
ME BC/BS	1	5	4	4	5,660,700	3.09
Aetna	5	2***	5	5	8,496,100	4.64
Maximum Possible Points	300	300	400	1000		
Range of Scores	65.7	57.1	117.0	218.2		
Maine II						
BSM	1	1***	1	1	$9,866,706	$3.03****
BSRI	2	1***	2	2	9,589,400	3.10
Maximum Possible Points	250	350	400	1000		
Range of Scores	57.7	0	9.7	67.3		

*Includes implementation/transition costs. In Maine I, implementation costs were included in the evaluation of the fixed price; in Maine II they were excluded from the evaluation. In Maine II, Blue Shield of Massachusetts bid an implementation cost of $800,893 while BS Rhode Island bid $298,100.

**Based on HCFA estimate of claims volume.

***Tied score.

****Unit price for operational period as estimated by HCFA. See memorandum by Lamont W. Williamson, "Selection of Medicare Carrier to Service the State of Maine," May 28, 1981 (BPO-P13).

review resulted in dissatisfaction among some providers and beneficiaries when it went operational.

Overall, BSM's performance under the Maine I contract has been good, especially as measured against the contract performance standards and its Massachusetts operations. BSM passed 147 of the 156 performance standards through June 1981, failing only 9 performance standards for which HCFA assessed liquidated damages. BSM officials have stated that the threat of liquidated damages has caused them to pay close attention to the Maine contract. BSM's performance in Maine is consistently better than its Part B performance in its home state of Massachusetts, though it should be noted that the Massachusetts operation shows higher productivity and lower unit costs.

1.3.2 Maine II

The RFP for Maine II was issued on February 6, 1981, the first of the fixed price experiments to be recompeted. The second Maine RFP stipulated a 39 month contract beginning June 2, 1981 and ending September 30, 1984, with a one year extension. Key features of the Maine II RFP were the following.

- Site of Operations. The RFP required that the carrier establish and conduct all operations except mainframe computer processing in the state of Maine.
- Liquidated Damages. The carrier would be assessed liquidated damages as in the Maine I contract, although the method of assessment and the criteria used to evaluate the carrier's performance had been significantly changed. The RFP limits maximum amount of liquidated damages that can be assessed at 26 percent of the total contract price.
- Performance Standards. The RFP stipulated that the fixed price carrier would be evaluated in the same manner as the cost based carriers using the Contractor Performance Evaluation Program (CPEP). Liquidated damages would also be assessed for six functional areas.

- Incentives. The Maine II procurement was HCFA's first fixed price experiment to include incentive payments to a carrier to reward higher quality performance. CPEP provides the basis for awarding incentive payments and the maximum percentage of incentive payments to total contract price would not exceed 13 percent.

The Maine II RFP attracted initially three proposals, from Blue Shield of Massachusetts (the incumbent), Blue Shield of Rhode Island (BSRI), and Prudential; however, Prudential withdrew its bid prior to award. Table 1.2 lists the respective performance indicators of firms which bid on the Maine II contract.

The proposals were subjected to a formal evaluation in three major areas: the quality of the technical proposal, corporate experience, and price. In Maine II, price was weighted to account for 40 percent of the total score with corporate experience weighted at 35 percent and technical quality at 25 percent. In the Maine II competition, HCFA stipulated that implementation costs were to be separated from operating costs and that implementation costs would be ignored in scoring the bids. This was done in order to prevent giving a price advantage to the incumbent. HCFA did state, however, that the implementation bids would be separately analyzed for "reasonableness" to prevent any offeror from taking advantage of this exclusion. In the ensuing competition, BSM bid approximately 8 percent of its contract price for implementation ($800,893) and BSRI bid 4 percent ($298,100). HCFA found both bids to be "reasonable" and it awarded the highest number of points to BSM for price based solely upon operating costs. It is clear that HCFA's intention of not giving the incumbent an inherent advantage did not work as intended in this instance. The fact that BSM bid implementation costs that were 2.6 times higher than BSRI's, illustrates this point. BSM had already begun to move some operations to Biddeford, while

BSRI would have had to start a whole new operation in Maine. On prima facie grounds, one bid or the other appears unrealistic. As it turned out, BSM, the incumbent, won the competition while bidding a slightly higher total fixed price ($9,866,706) than did BSRI ($9,859,400). Table 1.3 lists the scores achieved by the bidders in the Maine II procurement.

The transition/implementation period for the second fixed price contracting experiment in Maine extended for a four month period from June 1, 1981 to September 30, 1981. Since BSM won this competition, this implementation period did not involve any transition activities to a different contractor. As might be expected, there were no service disruptions caused by this recompetition. Another factor which contributed to the smooth transition was that BSM had already begun to move its claims processing operations to Maine during the final year of its Maine I contract. Had BSM not made this move, it is doubtful that it could have completed the required implementation activities within the limited four month transition/implementation period.

There were a number of advantages in using Maine for the first fixed price experiment. With the small claims volume in the state, service disruptions resulting from the transition of carriers, if any, would be less severe than in a state with a relatively high volume of Part B claims. Further HCFA would be able to gain experience with the process of transition and implementation under conditions where the outgoing carrier was most likely to be highly cooperative in phasing out its Part B operations. Finally, it was also considered a first step in the possible reorganization of the New England area under one carrier in a future competition.

Our findings on the Maine fixed price experiments are the following:

- The experiments in Maine have probably been successful in reducing the cost to the government of Part B claims processing. Estimates of the government's savings on administrative costs are sensitive to assumptions about cost reductions achievable by comparison carriers through 1984. Depending on the assumptions, the Maine experiments may have saved $5 million in administrative cost or lost as much as $1 million (i.e., six percent of the fixed price payments).

- The accuracy and timeliness of claims processing in Maine have not been harmed by the fixed price contracts. It appears that HCFA's methods of monitoring quality and assessing liquidated damages were sufficient to maintain processing quality in Maine. In fact, we find that the penalties for liquidated damages may have been somewhat too strict, so that the carrier did not achieve efficiency comparable to some of the better performing cost reimbursed carriers.

- The initial Maine experiment did experience some relatively minor disruptions in claims processing in 1978 when there was a change of carriers. However, many of the disruptions were unavoidable because the outgoing carrier had chosen to discontinue as a Medicare carrier. Replacement of the carrier via a fixed price competition was scarcely more disruptive than a noncompetitive award would have been.

- The Maine fixed price experiment achieved lower claims processing costs for the government via (1) relatively minor technical innovations which improved efficiency, (2) transfer of claims processing operations to rural sites with lower wage structures, and (3) simple price cutting wherein fewer corporate overhead costs were internally allocated to Medicare operations.

- The requirement that claims processing be performed within the state seems unnecessary in Maine. Neither the government nor Maine's own beneficiaries benefit from having processing occur within the state, and this requirement inhibits potential competition and may result in higher processing costs. Walk-in beneficiary services are not extensively used. A carrier could provide such a service without establishing its main operations within the state.

- HCFA's own monitoring expenses for the Maine fixed price contracts were not appreciably different from its costs for monitoring other New England Medicare carriers. Occasions where monitoring costs were higher are attributable to experimental conditions that would not persist if fixed price contracting became a standard feature of Medicare programs.

- The Maine experiments illustrate the long-run advantages of adopting a uniform national system of procedure coding for the Medicare program. A uniform system would (1) encourage more vigorous competition for claims processing work, (2) lessen the disruption occasioned by a change of carriers, and (3) permit a review of local medical utilization compared to national and regional norms.

1.4 History and Key Findings of the Illinois Experiment

The Illinois experiment consolidated the service areas of two carriers who had served the state since the inception of Medicare in 1966. Health Care Services Corporation (HCSC), a Blue Shield Plan, served Cook County while Continental Casualty Company (CNA) served the rest of the state. Both carriers were located in Chicago. Both HCSC and CNA were large carriers of roughly similar size. By combining the Cook County and downstate regions, the consolidation created the nation's seventh largest Part B operation in terms of claim volume.

In spite of the large scale of the Illinois program, the economic performance of the two prior carriers had been mediocre. Both carriers had maintained high costs per claim, though high levels of billed charges per claim in this region allowed both to maintain levels of expense per benefit dollar that were well below national averages. However, CNA had made substantial progress in cutting expenses per claim and per benefit dollar over the 1974-1978 period. HCSC, on the other hand, showed increases in administrative productivity that were far less than those being realized for the Part B program as a whole. In 1974, HCSC was tenth highest in the ranking of 48 carriers with respect to cost per claim; CNA was twelfth highest; at the end of FY 1978, HCSC was still the eleventh highest carrier while CNA had improved to the twenty-second highest.

Illinois was selected for the experiment largely because of this mediocre performance history and the promise of cost savings through statewide consolidation of program administration. On March 31, 1978, HCFA issued a RFP for a Medicare Part B carrier to serve the state of Illinois. Key features of the Illinois RFP were the following.

- Period of Performance. The carrier would serve the state for 60 months from July 1, 1978 through September 30, 1983. There was a 9 month implementation period with Cook County phased in on April 1, 1979 and the remainder of Illinois by July 1, 1979.
- Type of Contract. HCFA would award a total fixed price contract to include all of the carrier's costs for providing Part B administration. The carrier would be obliged to absorb any losses and retain any profits resulting from the contract.
- Allowance for Adjustment. The RFP provided that the bidder was solely responsible for variation in claims volume during the contract period and that there would not be any price adjustment for volume. Allowances would be made for changes in postage and FICA taxes.
- Site of Operations. The carrier was obligated physically to establish an operation in the state of Illinois including walk-in services for beneficiaries. Only computer processing was permitted to be performed outside the state.
- Toll-Free Telephone. The carrier was to provide toll-free telephone service for all beneficiaries in Illinois. The RFP did not explicitly define the level of service which HCFA would consider adequate.
- Liquidated Damages. The carrier would be assessed liquidated damages, i.e., penalty payments, at the rate of .125 percent of the total contract value for each violation of performance standards applied on a quarterly basis. This penalty was subsequently set at $52,250 per standard based on EDSF's winning bid.
- Performance Standards. HCFA would judge carrier performance using a monitoring plan to be completed after contract award.
- Medical Coding. The RFP requested that the carrier implement a single coding structure replacing the dual system previously used. The system could be either of the existing systems of the outgoing carriers in Illinois or any other HCFA approved Medicare coding system.

The RFP attracted proposals from five organizations, all of which were Part B carriers with the exception of EDSF. Table 1.4 lists the organizations which bid on the Illinois contract and their respective performance indicators.

Table 1.4: Performance Indicators of Bidders on Illinois Procurement for Year Preceding the Competition

Bidder	Cost per Claim	Error Occurrence Rate	Payment Deductible Error Rate
Illinois - FY 1977			
EDSF	NA	NA	NA
HCSC*	$3.47	14.6	2.6
[GA	2.89	10.7	2.5
Prudential [NJ	2.86	7.9	1.7
[NC	2.42	8.9	3.0
Continental*	3.15	14.9	3.9
General American	3.29	5.2	1.6
National Average - FY 1977	2.68	8.7	2.4

*Incumbent
NA=Not applicable

In the Illinois procurement, the proposals were initially screened for responsiveness and then subjected to a formal evaluation in three major areas: the quality of the technical proposal, corporate experience, and price. In Illinois, price was weighted to account for 45 percent of the total score, with firm experience weighted at 35 percent and the quality of the technical proposal weighted at 20 percent.

EDSF, the lowest bidder, won the procurement. Although EDSF has a long history of involvement in the Medicare program, its involvement had been confined to data processing. EDSF currently holds twelve Medicare Part B subcontracts, including the other two experimental sites, and processes more Part B claims than all other carriers combined. However, the experimental contract with HCFA to process Medicare Part B claims in Illinois is EDSF's first opportunity to administer the complete Part B process. Table 1.5 lists the rank scores achieved by the bidders on the Illinois fixed price procurement.

Table 1.5: Rank Scores for the Illinois Procurement

Technical Evaluation	Points Available	Offerors					Range of Scores*
		HCSC	GA	EDSF	CNA	PRU	
		Rank Scores					
1. Technical							
Implementation and transition	22	3	4	2	2	1	3.67
Claims processing	48	1	5	4	2	3	5.00
Coverage and utilization safeguards	26	1	5	4	3	2	2.80
Program reimbursement	22	3	5	4	2	1	8.46
EDP operations	30	1	2	4	4	3	6.10
Beneficiary services and prof. relations	20	4	1	5	3	2	3.68
Carrier management	32	3	5	4	1	2	7.80
Total Technical	200(20%)	2	5	4	3	1	21.40
2. Offeror's experience	350(35%)	2	4	3	5	1	30.80
3. Price	450(45%)	2	4	1	3	5	119.20
Final Score	1000(100%)	2	5	1	3	4	220.40
Bid Price (millions)		$46.5	$80.0	$41.8	$49.0	$81.5	
Bid Price per claim**		$2.25	$3.81	$2.03	$2.38	$3.94	

*Difference between lowest and highest score.
**Estimate based on HCFA's volume projection for Illinois.

The transition/implementation period in Illinois was designed to be a staged process, to be completed in 12 months from the effective date of the contract (July 1, 1978). As scheduled, EDSF assumed the Cook County (HCSC) workload on April 1, 1979, and the downstate (CNA) workload on July 1, 1979. Virtually all observers agree that the transition period was not successful in view of EDSF's performance during the initial operational period. Early performance problems have included the following.

- The timeliness of claims processing was very poor. Backlogs of claims and informal reviews rose markedly throughout the first year of operations and were subsequently reduced during the second year. Between the sixth and twelfth months of operation, timeliness measures showed the extent of the problem; only 37.6 percent of claims were processed in 15 days or less (incumbents had been achieving a 76-77 percent rate); 50 percent of claims had been pending for more than 30 days (incumbents had been running at rates of 8 to 9 percent); and informal reviews took as long as 82.5 days (against a contract standard of 25 days).
- Claims processing error rates were very high and fell very slowly; at the end of the first 12 months of operations both the error occurrence rate and payment deductible error rate were twice as high as those being achieved by former Illinois carriers.
- The operations monitoring system employed by HCFA to assess carrier performance (System II) showed that the EDSF system was substandard across a wide range of operational functions. During the first two years of operations, EDSF failed 47 of the 72 reviewed standards.

While EDSF's performance in some areas improved, there continued to be considerable dissatisfaction with their overall performance. There was active class action litigation on behalf of beneficiaries and a petition before HCFA signed by 17 members of the Illinois Congressional delegation; both actions seek replacement of the carrier. The ongoing, unfavorable visibility of this large experiment continues to jeopardize adoption of legislation which would permit the use of competitive contracting as a possible mechanism for economizing on the administrative costs of the Medicare program.

Two major problems which EDSF encountered during the transition contributed to these difficulties. The first of these transition problems involved establishing a procedure coding system. EDSF in its proposal had stated its intention to use the 1964 National Association of Blue Shield Plans (NABSP) coding system (used by HCSC) and convert the 1964 California Relative Value Study (CRVS) codes used by CNA into the NABSP structure. Subsequent to contract award, EDSF found that both incumbents had modified the standard coding systems to include special aggregate codes for groups of procedures. These special codes precluded a straightforward mapping of one coding system to another to construct common history files and, most importantly, to create statewide reasonable charges for physicians. On November 29, 1978 (nearly five months after contract award), EDSF proposed to alter their original plan and adopt the Current Procedural Terminology, Version 4 (CPT-4) American Medical Association's (AMA) coding structure which was being used by Medicaid in Illinois. HCFA denied the request on grounds that this system had not yet been approved for use in Medicare. In December, EDSF began work on a modified version of the NABSP codes. Interim approval of this new system was granted by HCFA in February 1979. As a consequence, an enormous amount of "rush" work remained to be done on the system and files during February and March in anticipation of the start-up on April 1.

The second major problem encountered during the transition was EDSF's inability to attract sufficient clerical personnel to staff its Des Plaines, Illinois, operational site. There is no proximate clerical labor supply in the Des Plaines area and the supply from city locations is difficult to attract due to poor public transportation. EDSF made a fundamental mistake in locating all operations in Des Plaines; that decision had far-reaching and long-term implications for performance. In October 1976, EDSF began to move its major clerical operations to two satellite offices in Marion and Springfield, Illinois.

It is not clear that the incentives of the fixed price contract have caused the carrier's performance to be poor. Several distinctive features of the Illinois contract have obfuscated definitive assessments of carrier performance, the extent to which problems can be attributed to the specific contracting mechanisms themselves, and the extent to which problems in Illinois can be generalized to applications of fixed price contracting in other locations. These distinctive features of the Illinois experiment include:

- the large scale of the Medicare program in Illinois;
- the simultaneous consolidation of two regions into one;
- the selection of a firm with no experience as a prime Part B carrier;
- the selection of a computer systems firm rather than one from the insurance industry;
- the selection of a firm with no preexisting claims administration operation in the state;
- simultaneous modifications to the Part B program, including toll-free Watts line services; and
- inexperience of HCFA staff in planning and monitoring transitions, consolidations, and activities of new carriers.

In addition, the utilization of the Part B program in Illinois increased markedly during the first two years of the contract. Alone and in tandem, these distinctive features of the Illinois experiment cloud any direct inferences about the reasons EDSF performance may have been poor and, correspondingly, whether competitive fixed price incentives were responsible or whether the experimental design or the procurement process may have been deficient.

Our findings on the overall Illinois fixed price experiments are the following.

- The Illinois experiment has been successful in achieving its principal goal of reducing the administrative expense of Part B claims processing. Estimates of savings to the government range from $27 to $65 million. Unlike the other fixed price experiments, it seems likely that the carrier has lost money on this experiment.

- The accuracy and timeliness of claims processing were seriously reduced during the first two years of the Illinois experiment. Improvement has been slow. Specifically:

  -- error rates on claims processing were unacceptably high in FY 1979; they have continuously improved, but it has taken over 2.5 years of operations for error rates to approach levels maintained by prior carriers; and

  -- timeliness of processing was very slow in the first year as backlogs grew--this problem was resolved in the second year.

- Administrative efficiency (measured by using reported costs) was poorer than expected as EDSF spent considerable funds to reduce backlogs, to move operating sites and to repair performance problems. Due to these expenditures, reported actual cost per claim is far in excess of the fixed price of approximately $2.03. Nevertheless, EDSF's costs were far below the levels achieved by prior Illinois carriers.

- Control of benefit payment levels also seem to be improved during EDSF's tenure; the ratio of benefit payments to billed charges has declined. While this measure is not an unambiguous indicator of benefit payment control, there are indications that the EDSF system was effective in detecting the large numbers of duplicate claims that were filed during the first year of heavy claims backlogs. One indicator of this capability is the fact that the dollar value of discovered duplicate claims almost doubled between fiscal years 1979 and 1980, increasing from slightly over $17 million in FY1979 to over $33 million in FY1980. This dollar volume figure correlates closely with changes in claims volume.[1]

- EDSF did bring some innovations to the Illinois Part B program. Its preference for automated approaches has led to more systematic price screening for several types of vendors which were manually screened by former carriers. Other important program innovations include the use of mail sort procedures and coding specializations for large claims, the use of summary Explanation of Medicare Benefits (EOMBs) for unassigned claims, and the development of an on-line automated correspondence generating system.

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[1] See Table 4.17, "Value of Discovered Duplicate Claims," p. 4-31 of the Illinois Case Study Evaluation Report.

- EDSF´s protracted difficulties in meeting contract standards and incurring liquidated damage assessments suggests that the schedule of liquidated damages should be sensitive to a volume measure such as the claims backlog, the dollar value of unpaid claims, or the volume of unanswered correspondence. A volume sensitive method of computing damages would increase the financial disincentive associated with poor claims processing speed or poor response time on correspondence. In the Illinois experiment, the liquidated damage schedule was not volume related. Furthermore, it did not distinguish near misses of performance standards from gross failures with the result that the financial disincentives of liquidated damages were not closely attuned to the degree of poor performance. A volume sensitive method would be more in keeping with the "reasonableness" criteria of federal procurement regulations since damages caused by delays in performance are likely to be proportional to the volume of work not done on time.

- Many of the service disruptions in the Illinois experiment were due to factors other than the fixed price method of payment. The consolidation of two large Illinois carrier territories into a single statewide territory administered by a relatively inexperienced carrier was an important cause of subsequent disruptions.

- HCFA´s methodology for scoring proposals in the Illinois experiment was not effective at differentiating the full technical capabilities of the various bidders. In particular, HCFA´s scoring methodology needs to be modified to allow for a more global assessment of the feasibility of proposed implementation plans.

- Nothing in the Illinois experiment suggests that data processing firms should necessarily be ruled out as potential Medicare carriers or that current Medicare carriers should necessarily enjoy a favored status for future Medicare work. Rapid changes in claims processing technology suggest that HCFA should be willing to continue to experiment in awarding Medicare contracts to firms that are likely to offer an innovative approach to claims processing.

- The Illinois experiment illustrates the long-run advantage of adopting a uniform national system of procedure coding for the Medicare program. A uniform system would (1) encourage more vigorous competition for claims processing work, (2) lessen the disruption occasioned by a change of carriers, and (3) permit a review of local medical utilization compared to national and regional norms.

1.4.1 Recent Competition in Illinois

In October 1982, HCFA released an RFP calling for a continuation of the fixed price competition in Illinois. Bids were received from three firms: EDSF, HCSC, and the General American Life Insurance Company. EDSF was the incumbent carrier in Illinois while HCSC, the Illinois Blue Shield plan, was one of the two former cost reimbursed carriers that had served in Illinois prior to the experiment. General American was a Part B carrier for a neighboring territory in Missouri; it had also bid on the previous Illinois competition.

HCFA awarded the contract to HCSC on July 13, 1983. HCSC is to start processing claims on April 2, 1984. The contract will run for a 36-month period ending March 31, 1987. The contract also allows for two one-year extensions.

HCSC won the competiton with a bid of $29,200,850, EDSF bid $39,500,000, and General American bid $53,000,000. If one estimates claims volume for the contract as 25 million (a simple extrapolation of historical volume), the respective cost per claim bids were $1.17, $1.58, and $2.08.

The Illinois recompetition is instructive on several issues. First, it demonstrates that serious competition can occur on a reprocurement. HCSC was willing and able to offer an acceptable technical bid in spite of the fact that it was no longer a carrier with either a site of operations or an operational claims processing system. One notable feature of the HCSC proposal was its designation of Marion, Illinois as its principle site of operations. Since Marion was already a site of operations for the incumbent EDSF, the implication of HCSC's bid was that it would recruit experienced staff from its rival. HCSC also proposed to use the MDC claims processing system. As we note in section 2.6, the system was originally developed by a consortium including HCSC. The system has also a history of being used by high cost carriers.

Second, HCSC's bid illustrates that a "low price" is not a one-time-only phenomena for a competitive fixed price contract. The first Illinois competition brought about a significant fall in the price per claim and this experience continued in the second competition. HCSC's bid was appreciably below the FY 1982 national average cost per claim of $2.51. It is not clear whether this bid signifies the firm's expectation that it can achieve productivity appreciably better than all other carriers or whether its bid reflects only the firms marginal cost unencumbered by general corporate overhead.

1.5 History and Key Findings of the Upstate New York Experiment

The upstate New York fixed price experiment involved a 47 month period of operations from November 1, 1978 to September 30, 1982. The territory subsequently reverted to a cost reimbursed contract with Blue Shield of Western New York (BSWNY), the contractor for the fixed price experiment.

From the inception of the Medicare program in 1966 until 1979, three Part B carriers serviced the upstate New York region under cost reimbursement contracts. Metropolitan Life Insurance Company, operating from a claims processing field office in Utica, serviced 32 counties with an estimated enrollment in 1978 of 410,290 Part B beneficiaries. BSWNY, with headquarters in Buffalo, serviced approximately 185,865 beneficiaries in its surrounding seven county area. Genesee Valley Medical Care, Inc. (GVMC) serviced approximately 113,591 beneficiaries in Rochester and its six county areas. Combined, the three carriers processed over 2.5 million claims with benefit payments of over $116 million in fiscal year 1978. Their total administrative costs for that year exceeded $8 million.

The differences among the three carriers were not confined to workload. Their performance varied considerably and, in many respects, reflected what was occurring nationally in the Medicare program. An analysis of HCFA costs reports reveals a wide variation among Metropolitan, BSWNY, and GVMC in terms of their unit cost to process a claim. Both BSWNY and GVMC were high cost carriers in terms of the national average while Metropolitan's costs were well below the mean. In fact, in terms of the national adjusted unit cost per claim figures, of the 48 carrier/location sites listed, Metropolitan was the eighteenth lowest cost carrier, while Rochester was in fortieth place and Buffalo was forty-third. In terms of productivity, all three carriers were below the national average, although Metropolitan was very close. However, both Metropolitan and BSWNY were faster than the national average cycle time for processing a claim while GVMC required much more time.

The upstate New York RFP for a 47 month contract was issued June 30, 1978, with proposals due on August 30, 1978. Key features of the RFP included the following.

- Period of Performance. The carrier would serve upstate New York for 47 months through September 30, 1982. There was an 11 month transition period with the operational phase set to begin on October 1, 1979.
- Type of Contract. HCFA would award a total fixed price contract to include all of the carrier's costs of providing Part B administration. The carrier would be obliged to absorb any losses and would retain any profit resulting from the contract.
- Allowance for Adjustments. The RFP provided that the bidder was solely responsible for estimating claims volume and that there would not be any price adjustment for volume. Allowances would be made for increases in postage or FICA taxes.
- Site of Operations. The carrier would be obliged physically to establish an operation in the state of New York with only computer processing permitted outside the state.

- Toll-Free Telephone. The carrier was to provide toll-free telephone service for all beneficiaries in the new consolidated service area. The RFP defined the level of toll-free telephone service which HCFA required and was the first of the fixed price RFPs to do so.
- Liquidated Damages. The carrier would be assessed liquidated damages, i.e., penalty payments, at the rate of .182 percent of the total contract value for each violation of performance standards applied on a quarterly basis. This penalty subsequently was set at $36,939 per standard based on the winning bid.

The upstate New York competition involved six firms which were all experienced Medicare carriers (see Table 1.6). Five of the firms were commercial insurers; the other was the Blue Shield incumbent carrier in the Buffalo area. Proposals were subjected to a formal evaluation in three major areas of price, corporate experience, and the quality of the technical proposal. In the New York evaluation, price was weighted to account for 50 percent of the total score with experience weighted at 35 percent and the quality of the technical proposal at 15 percent.

Table 1.6: Performance Indicators of Bidders on New York Procurement

Bidder		Cost per Claim	Payment Deductible Error Rate	Occurrence Error Rate
New York - FY 1978				
BSWNY (Buffalo Blue Shield)		$3.70	1.6	6.4
CNA (IL)		3.02	2.8	11.0
GHI (NY)		3.29	1.5	5.7
(FL)		2.44	1.7	14.6
Metropolitan	(NY)	2.70	1.5	3.5
	(KY)	2.93	3.7	16.3
Occidental	(CA)	2.83	2.3	13.3
Prudential	(GA)	2.84	2.6	8.7
	(NJ)	2.78	1.7	4.3
	(NC)	2.40	1.1	6.3
Other Incumbent - Non-Bidder				
GVMC (Rochester Blue Shield)		3.50	4.1	6.8
National Average		2.86	2.1	8.7

BSWNY, the lowest bidder, won the procurement. Table 1.7 lists the scores achieved by the bidders in the upstate New York procurement. As the table indicates, price competition in this experiment was vigorous with all bids falling in the range of $20 to $29 million.

Table 1.7: Comparisons of Scores and Prices for the Fixed Price Procurement for New York

	Evaluation Rank Scores					
Bidder	Technical	Experience	Price	Total	Total Price*	Unit Price**
BSWNY	3	4	1	1	$20,296,150	$1.53
CNA	1	3	3	2	22,320,000	1.68
GHI	6	6	2	4	21,358,800	1.61
Metropolitan	2	2	5	3	23,871,000	1.80
Occidental	5	5	4	5	23,790,000	1.79
Prudential	4	1	6	6	29,377,000	2.22
Maximum Possible Points	150.	350.	500.	1000.		
Range of Scores	12.75	75.09	154.55	118.41		

*Includes implementation/transition costs. In New York, implementation costs (set at six percent of total contract price) were included in the evaluation of the fixed price.

**Based on HCFA estimate of claims volume.

One of the important strategies of BSWNY in bidding was to plan to relocate its operations from Buffalo to Binghamton. This move achieved a number of economies. The most prominent was that unionized labor in Buffalo was replaced with nonunion labor in Binghamton at a considerable savings in labor costs. In addition, BSWNY undertook a major upgrade of its computer system which brought about important improvements in productivity.

The formal transition/implementation period of the upstate New York experiment began on November 1, 1978, when BSWNY was awarded the fixed price contract. The RFP provided for a three-phase implementation with the new carrier beginning claims processing on June 1, 1979, in the 7 county area serviced by BSWNY. The 32 county metropolitan area was to be implemented on August 1, 1979, and the 6 county GVMC area on October 1, 1979.

BSWNY's performance during the first six months of operations in the consolidated area was marginal, but improved considerably after this initial period. Claims pending reached an all-time high of 21.7 days work on hand in September 1979, after which it declined steadily to a low of 7.6 days work on hand in January 1980. The quality of claims processing as measured by error rates was very poor during the September/December 1979 period, and did not return to acceptable levels until the quarter ending in March 1980. The backlog of unprocessed informal reviews (appeals from beneficiaries and providers) exceeded 20,000 in December 1979, after which it began a steady decline to under 5,000 in the June 1980 quarter.

In general, the upstate New York transition went quite smoothly despite the complexity of consolidating three carrier territories. BSWNY encountered no serious problems in mapping the procedure coding systems used by the former incumbents and by its Buffalo Medicare staff to a new five digit procedure coding system based on the California Relative Value Study (CRVS). The three major problems which BSWNY did encounter during the transition were not directly a result of the fixed price nature of the experiment and could be expected to occur in any area where HCFA is consolidating carrier territories. The first problem involved the requirement in the RFP that the new carrier merge the prevailing fee profiles for general practitioners and specialists in the metropolitan service area. This "specialty-merge" resulted in all physicians, regardless of specialty, having the same prevailing charges for particular services. This could result in some physicians and beneficiaries receiving less payment and others more payment for the same service after the July 1, 1979 profile update than they had previously. In an effort to forestall negative beneficiary and physician reaction to this change, BSWNY initiated an extensive educational campaign to notify providers and beneficiaries of the impact of the specialty merge. BSWNY officials believe that their educational campaign was only partially successful and point to the large amount of appeals which they received after assuming responsibility for the metropolitan area as an indication of their limited success.

The second major problem which BSWNY encountered during the transition was the adverse publicity it received in the Rochester area due largely to statements in the media by the president of Genesee Valley Medical Care. He is quoted as saying on a local television program that he was "betting $1,000 the assignment rate would drop 10 percent." The public concern engendered by such statements caused BSWNY to intensify its professional relations and beneficiary services activities in the Rochester area, and caused HCFA to spend a great deal of time in the Rochester area rebutting the charges.

Perhaps the most significant factor which contributed to BSWNY's initial performance problems involved its inexperienced staff. Although BSWNY had been a Medicare carrier since 1966, the change in contract from cost reimbursement to fixed price involved BSWNY switching the site of its Medicare operations from Buffalo to Binghamton, New York. As a result of this move, all of the supervisory and clerical personnel in Binghamton were new employees. Only a handful of management personnel were transferred to Binghamton from the Buffalo operation. What is really significant in the New York experiment is the relatively short period of time which BSWNY required for its new staff to reach full productivity and acceptable quality levels.

Despite its operational difficulties in its initial months, BSWNY made rapid and significant improvements in all areas of performance during 1980 and 1981. For the seven evaluation quarters ending September 30, 1981, BSWNY has passed 81 of 84 performance standards. Overall, HCFA now considers BSWNY to be an "above average" carrier.

A summary of our findings on the upstate New York fixed price experiment are as follows.

- The experiment in New York has been successful in reducing the cost of Part B claims processing. Estimates of savings to the government range from $8 to $33 million.
- The accuracy and timeliness of claims processing in New York has not been harmed by the fixed price contract. It appears that HCFA's methods of monitoring quality and assessing liquidated damages were sufficient to maintain processing quality in New York.
- The New York experiment did experience some relatively minor disruptions in claims processing in 1979 when there was a change of carriers. However, many of the disruptions were unavoidable due to the change of Medicare carriers following the award of the contract. Replacement of the incumbent carriers via a fixed price competition was probably not more disruptive than replacement via a noncompetitive award would have been.
- Cost reductions were achieved in the New York experiment by means of reorganization of operations by the winning carrier. The carrier achieved dramatically lower costs by moving its operations from a unionized shop in Buffalo, New York, to a nonunion shop in Binghamton. No incentive for such a radical change would exist under a traditional cost reimbursed contract.
- The upstate New York experiment illustrates the importance of having an initial core staff of experienced line managers during the critical periods when an operational site is relocated or when a larger claims volume is being absorbed. The core group of experienced managers in upstate New York consisted of fewer than a dozen persons. They succeeded, however, in setting up a new claims processing operation with inexperienced clerical staff in a new location.
- Adverse publicity and protests by beneficiaries did occur in one region of New York during the changeover of carriers at the start of the experiment. Good claims processing service by the new carrier appears to have mollified the initial discontent.

- HCFA's own monitoring expenses for the New York fixed price contracts were not appreciably different from its costs of monitoring other Region II Medicare carriers. Occasions where monitoring costs were higher are attributable to experimental conditions that would not persist if fixed price contracting became a standard feature of Medicare programs.
- The New York experiment illustrates the long run advantages of adopting a uniform national system of procedure coding for the Medicare program. A uniform system would (1) encourage more vigorous competition for claims processing work, (2) lessen the disruption occasioned by a change of carriers, and (3) permit a review of local medical utilization compared to national and regional norms.

1.6 Administrative Findings

The review of separate experiments suggests actions which may improve the administration of competitive, fixed price contracting for Part B services. These administrative findings relate to two principal areas of administration: contract terms and proposal evaluation criteria.

1.6.1 Contract Terms

In bidding on firm fixed price contracts, potential carriers were asked to assume several risks which are not borne by traditional cost reimbursed Medicare carriers. Major areas of risk were (1) the fixed amount of payment, (2) the length of the contracts (three to five years), (3) the need to undertake operations in one or more territories, (4) HCFA's requirement that fixed price carriers provide the new service of toll-free telephones, (5) the unspecified size of the workload, (6) ambiguity about the details of the contract monitoring plan, and (7) possibility of unspecified revisions in the carrier manual governing Medicare claims procedures. These various risks influenced both the decision of firms to bid (or not) and the level of the fixed price offer itself. Firms that considered the financial exposure of these risks to be quite high generally chose not to participate in the competition. Firms which chose to bid had to estimate the expected financial value of several unknowns and then decide how much of a risk premium they should build into their bid price.

One interesting aspect of the experiments is that large insurance companies generally submitted higher bids than did the Blues or EDSF. This pattern seems to reflect the higher opportunity costs of commercial insurance companies who tended to view the potential profits of fixed price Medicare contracts to be small relative to other investment opportunities. Blue Shield Plans, in contrast, tended to view Medicare as a contributor to both overhead expenses and "full service" health insurance in a market where their other opportunities were restricted by insurance regulations. Consequently, Blues seem to have been more willing to submit bids where the price would cover expected direct costs and a relatively small portion of corporate overhead. The tendency toward high price bids from the commercials, of course, does not mean that bidders were necessarily in agreement about the probability or the associated dollar value of contract risks. In the Illinois experiment, for example, one of the commercial insurance companies correctly anticipated a major increase in claims volume and priced its bid accordingly. It is not clear, however, whether rival bidders also foresaw this increase and chose to risk a lower bid in spite of the risk.

Unpredictable Risks

In the fixed price experiments to date, the least predictable risks to the carriers seem to have occurred in two situations which are not likely to be repeated in any future contracts. First is the case where HCFA asked carriers to undertake new service in providing toll-free telephone service to beneficiaries. Bidders found it very difficult to anticipate the cost of this service because, at the time, there was no historical information to determine the likely use of this service. As an economy measure, HCFA has recently discontinued the requirement that all Medicare carriers provide toll-free service. However, since all carriers now have at least two years of experience with toll-free service, the uncertainties of estimating its costs have now largely disappeared.

The second unpredictable risk occurred in the provisions that liquidated damages would be assessed based upon the fixed price carrier's error rates relative to the performance of all other carriers. Specifically, fixed price carriers were expected to score either above the median (Illinois) or at the 60th percentile (Maine and upstate New York). Since fixed price carriers did not know in any quarter what level of error would correspond to the national distribution, they were hampered in their ability to predict the amount of resources they would need to meet these standards. We should note that in the recent recompetition of the Illinois territory, HCFA has corrected this problem by adopting fixed standards for error rates.

The final and possibly most important area of risk in the experiments was associated with predicting the volume of claims. Because the contract award was for a "total fixed price," the financial consequences of changes in claim (workload) volumes would be considerable. Bidders apparently differed in their abilities to generate accurate predictions of claim volumes and in their willingness to incorporate the expected cost of volume changes into their bids. Under the present fixed price experiments, carriers have the obligation to process all Medicare claims submitted over the life of the contract. To the extent that the volume of claims is unpredictable, carriers bear the risk in the short run of hiring too many or too few resources to meet actual claim loads. In the experiments to date, the risk of uncertain claims volume has not been so serious a problem that fixed price contracts have proved to be inherently unsound. In our case studies, for example, we found several situations where bidders claimed to have been able to make accurate projections of volume--sometimes more accurate than HCFA's own estimates. However, we also found in Illinois that the number of claims increased dramatically during the course of the experiment.

One obvious problem with the current design of fixed price contracts is that the government receives no information in the proposals about the claims volume assumptions of bidders. We do not believe it serves the best interest of the government to have to evaluate proposals where participants may be working under dramatically different assumptions about claims volume. Comparative price analysis cannot be done adequately with differing assumptions undisclosed. A fixed price contract, after all, is not intended to be a lottery for predicting claims volume. There is a danger where claims volume is unspecified that the government may award a contract to a bidder who has seriously misestimated the workload. In this situation, the bidder's low price would signal incompetence (in predicting volume) rather than the superior efficiency (in claims processing) that a low price is supposed to denote.

We believe it would be advantageous to all parties for the government to avoid the danger of awarding a contract to a low price bidder who has seriously underestimated claims volume. Bidders who seriously underestimate volume may be financially forced to default on their contracts with the result of serious disruption in the processing of Medicare claims.

There are several possible solutions to the problem of keeping bidders from misestimating the volume of claims. First, the government could offer an "advisory" estimate of claims volume in the RFP as a guide to the level of effort that it anticipates on reasonable bids.[1] The estimate could be either a single number or a probability distribution of possible volume levels. HCFA so far has avoided offering such estimates in the fixed price experiments in the belief that such an estimate might implicitly commit the government to renegotiate contracts if actual claims volume were to exceed this estimate. However, the government could specifically modify the traditional changes clause and related clauses in the Federal Procurement Regulations in order to eliminate or limit its obligation to renegotiate if the claims volume estimate was in error.

A second, and we believe superior, approach to this problem would be for the government simply to declare a maximum claims volume above which it would pay a fixed rate per claim specified in advance by the government. In statistical terms, the government would rule out the tails of the probability distribution of claims as an area for competition and ask for bids to process only highly probable volumes near the middle of the distribution. This approach would remove a great deal of uncertainty in evaluating bids while at the same time exposing the government to only a trivial risk that a renegotiation would actually be required. The resulting contract would be in the nature of a "fixed price contract with escalation," as authorized in the Federal Procurement Regulations, rather than a "firm fixed price contract."

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[1] In the 1982-1983 Illinois recompetition, HCFA revised its policy and asked bidders to submit an estimte of claims volume. From discussions with HCFA, we understand that the claims volume estimate was treated as advisory information which was not used in the scoring of proposals.

1.6.2 Proposal Evaluation Criteria

In this section, we discuss the criteria and methods which HCFA used in selecting carriers under the fixed price competitions. Our discussion explains key features of HCFA's approach and offers suggestions for improvements.

Throughout this section, we attempt to balance two competing considerations: HCFA's understandable desire to keep its evaluation methodology secret and AAI's charge as an evaluation contractor to candidly discuss the strengths and weaknesses of the methodology.

In all of the experiments, the proposals submitted were initially screened for responsiveness and then subjected to a formal evaluation in three major areas: the quality of the technical proposal, corporate experience, and price. Each of the three components was weighted according to HCFA's perception of its relative importance to overall carrier performance. The weights to be used in the proposal evaluations (see Table 1.8) were provided in the RFPs as an indicator to bidders of how to structure their proposals. In the various experiments, price was weighted to account for 40 to 50 percent of the total score. The technical score for the quality of the written proposal was weighted at 15 to 30 percent of the total while experience was weighted 30 to 35 percent. In the present Illinois II recompetition, price now carries a weight of only 35 percent, while the technical score weight has been returned to the 30 percent level used in Maine I.

Table 1.8: Weighting Factors for Part B Fixed Price Experiments (Percent)

	Technical	Experience	Price	Total
Maine I	30	30	40	100
Maine II	25	35	40	100
Illinois I	20	35	45	100
Illinois II	30	35	35	100
New York	15	35	50	100

HCFA changed its evaluation weights from one experiment to the next in order to learn how weight changes would influence the outcome of the competitions in terms of the qualifications of the bidding firms and the aggressiveness of their pricing strategy. That is, HCFA was seeking, via experimentation, an optimal set of weights that would encourage both low priced bids and strong technical performance.

At present, there have been too few experiments to allow much to be learned from changes in the evaluation weights. Since a given set of weights has been used only once, it is impossible to differentiate the effect of the weights from that of other factors that were unique to the experimental site. For example, in the Illinois experiment one is unable to determine if placing a high weight on price and a low weight on experience necessarily led to an outcome where a relatively inexperienced firm with a low price wins. Case study evidence suggests to the contrary, that EDSF bid aggressively in Illinois because it had no ties as a subcontractor to any of the other bidders. The inability of the experiments so far to determine the effect of evaluation weights on award outcomes does not necessarily mean that HCFA should adopt a single set of weights in the future, if it should undertake wide-scale competitive bidding for Part B contracts. If HCFA were to conduct a large number of competitions and use one set of weights for some of these and another set for the rest, then there would be enough observations to see how the evaluation weights influence the outcome of the competition.

The first Illinois fixed price experiment in particular has been criticized for giving too much weight to price and too little to the offerors' experience. In our opinion, this is a misguided criticism prompted in part by the unfortunate performance of EDSF during the early stages of the fixed price contract. As shown in Table 1.8, the New York experiment attached more weight to fixed price than did the Illinois experiment. Nonetheless, New York has been a relatively successful undertaking in terms of initial carrier performance. A low weight attached to price is a priori no guarantee that the winning carrier will perform well. Furthermore, if a fixed price contract is to be distinguished from an ordinary cost reimbursable contract, price must play an important role in carrier selection.

Pricing Strategies and Scoring

The range of bid prices has been wide, and many offers have been considerably below levels achieved by carriers in other locations. In Maine I, the bids ranged from $4.7 million to $8.5 million with four of the bidders being within 20 percent of New Hampshire/Vermont Blue Cross Blue Shield, the lowest bidder (see Table 1.3). Three bidders were estimated by HCFA to be at or below the Union Mutual cost per claim for FY 1976 ($3.29). Maine Blue Cross/Blue Shield was estimated to be about 10 percent higher and Aetna (at $4.64 per claim) was 50 percent more than the Union Mutual cost per claim. In the Maine II procurement, the estimated unit prices were remarkably close, $3.03 for BSM and $3.10 for BSRI. As a point of reference, the bids were close to the BSM-Maine unit price of $3.07 in FY 1980 and higher than the national average of $2.69.

In the New York experiment, the bids ranged from $20.3 million to $29.4 million with four other bids being within 19 percent of Blue Shield of Western New York, the lowest bidder (see Table 1.7). The New York procurement is unusual among the four fixed price experiments because the bid prices were remarkably close. The limited variation in price may be due to: the stability of claims volume, experience and efficiency of bidding firms, or knowledge about the experience of the carrier in Maine. What is less clear, however, is where the cost differential between the bid price and cost in FY 1978 was to be made up if either incumbent were to win. All bids were substantially lower than the unit cost per claim of the three incumbent carriers in the region in fiscal year 1978. Two incumbent carrier bidders, BSWNY and Metropolitan, submitted bid prices which were 59 percent and 33 percent below their respectively reported costs per claim in fiscal year 1978.

In Illinois, the bids ranged from $41.8 million to $79.9 million with two of the bidders being within 20 percent of EDSF, the lowest bidder and winner (see Table 1.5). Three bids were less than the cost per claim experienced in Illinois during FY 1977. The HCSC bid was 65 percent of HCSC's actual cost per claim in FY 1977. The Continental bid was 76 percent of its actual cost per claim in FY 1977. Although we do not have any information concerning the actual volume numbers used by bidders in deriving the bid estimates, it appears that the incumbents either underestimated volume considerably or that the firms expected to be able to operate more efficiently (at a lower cost per claim) in the combined operation.

One of the allegations surrounding the Illinois procurement, in particular, is that competition encourages "buying in," that is, the bidding of an unreasonably low price in order to secure market foothold. There is little question that the fixed price competitions in New York and Illinois encouraged some remarkably low bids from the contestants. It also appears that EDSF has lost money on its contract. While all bidders contend that bid prices were at least adequate to cover costs and risks, all prices seem quite low in view of past performance. The EDSF bid seems no less feasible than the incumbents', in view of the incumbents' cost history. It is not clear from proposals whether bidders planned to achieve these levels of performance through operational economies or through a more favorable allocation of general and administrative expense. Whatever the pricing intention, the fixed price bids represent a striking illustration of the effects of competition on pricing behavior.

In our opinion, the weight on price in future fixed price competitions should not be less than the weight for experience, and it would be advisable for the weight on price to be set as high as 60 percent. We have several reasons for this recommendation. First, the principal purpose of a fixed price experiment is to test the hypothesis that fixed price contracts can save money for the Medicare program without incurring poor performance and corner-cutting by the carriers. If HCFA selects future experimental carriers without placing a major emphasis on price, it would fail to test the main hypothesis of the experiment. Nothing important would be learned if HCFA paid little attention to the bid price and instead awarded contracts to carriers primarily because they have performed well in the past (usually under a cost reimbursed environment).

Second, attaching a high weight to price is also a necessary condition for testing the effectiveness of liquidated damages as a device for assuring good contractor performance. In developing a system of performance monitoring and liquidated damages payments, the government recognized the pressures which contractors would face to cut corners under a fixed price contract. In this setting, the good intentions expressed in a technical proposal or good past performance under a previous cost-based contract are likely to be weak guarantees that program standards will, in fact, be met. In order to test the effectiveness of performance monitoring and liquidated damages, the government must award contracts in dollar amounts that will indeed create the anticipated pressures.

In the experiments to date, some contractors have submitted bids that were twice as high as others in spite of this high value placed on price. This suggests that competition *per se* is not any assurance that all bids will have comparably low prices. If HCFA had given price a low weight in deciding the winner, it would have also given the winning contractor a comfortable cushion against the inevitable pressures to lessen quality. Such a competitive environment would not have been an adequate test of the effectiveness of liquidated damages as a threat for forcing good performance when other factors fail.

Third, as we discuss below, HCFA's methodologies for assessing contractor experience and the quality of a technical proposal are still primitive. For this reason, the experience and technical scores should not carry more weight than price when making an award. At present, the HCFA formula for rating contractor experience is essentially an educated guess about the relative importance of different types of experience as a predictor of future performance under a fixed price contract. Since historical experience sufficient to validate this formula will not be accumulated for several years, price should continue to be a dominant factor in making awards.

Technical Evaluation Criteria

The technical component of the offeror's written proposal was evaluated to: (1) determine the offeror's understanding of the related program requirements; (2) assess the effectiveness of the organization to accomplish the objectives; (3) judge the qualifications of personnel assigned to key positions.

The technical proposals were reviewed in sections by review team members with relevant experience. Proposals were evaluated in the following areas:

1. implementation and transition;
2. claims processing;
3. coverage and utilization safeguards;
4. program reimbursement;
5. EDP operations;
6. beneficiary services and provider relations;
7. carrier management organization--program integrity; and
8. carrier management--quality assurance.

The technical proposals were scored in each of these areas by the use of a checklist of 19 to 90 questions in each area. The questions were stated in such a way that the evaluator could answer them yes/no or not applicable. The checklist approach was used to catalog the system capabilities and standard procedures which the bidder asserts will be followed

Typical of the checklist are the following questions taken from the evaluation of EDP capabilities: (1) "Have screens been identified for identical duplicates?"; (2) "Have screens been identified for potential duplicates?"; and (3) "Have screens been identified for prepayment utilization?" The intention of the checklist is for the evaluator to determine if the proposal discussed key items and described a system consistent with the RFP. The checklist does not include questions which call for subjective judgement of the relative merits of the proposal by the evaluator such as, "Are the screens identified by the proposer more extensive and sophisticated than the screens typically available from Medicare carriers?"

Scoring of the entire technical proposal was done in two stages. First, all the yes answers were tallied within each section (some questions were termed bonus questions and were worth two yesses). The number of yesses in each of the eight areas was added and weighted according to a predetermined scheme which reflected HCFA's view of the relative importance of each area. Within this framework, the qualifications of key personnel assigned to the transition and implementation were also evaluated. The scoring of staff experience was based on the same scheme used to evaluate corporate experience as described below.

Examination of HCFA's methodology for scoring the technical portions of the proposals reveals some weak areas. The first weakness is that HCFA's current checklist methodology does not fully exploit the technical competence of the review panel. The checklist, for example, often asks the reviewer if the proposal contains a plan to perform a specific task. The reviewer often is not asked logical follow-up questions such as "How sophisticated is the plan relative to standard industry practice?" "Can it be implemented on time?" "Has the bidder ever used this approach before?" As a result, reviewers are forced to award equal points to plans that may differ drastically in their feasibility and economic efficiency.

In discussions about the checklist, HCFA officials have acknowledged that the review panels are not allowed to exercise as much technical judgement as they could. HCFA officials have argued, however, that the current checklist approach has the offsetting merit that it avoids the problem of interrater reliability. That is, panel members are asked such narrowly focused questions that it is virtually impossible for panel members to come up with different scores. HCFA officials have told us that they seek a high degree of interrater reliability because this is one of the tests of "reasonableness" that a court would use in reviewing the scoring methodology. Since court challenges were expected in the course of the fixed price experiments, HCFA officials felt that their methodology would fare better in court if it emphasized interrater reliability even at the expense of minimizing the breadth of the technical judgement which might have been exercised by the review panels.

Abt Associates has examined lists of names of individuals who constituted the review panels. We were able to identify the vast majority of these individuals as HCFA employees who have had several years of experience with the day-to-day administration of the Medicare program. Areas of experience and training included financial administration, EDP operations, operations research, statistics, and routine claims processing. Members of the review panel were also experienced in developing the detailed regulations specified in the carrier manual which govern carrier operations. The technical training and program experience of the review panel members would, in our judgements were accompanied by reasoned explanation of the facts and principles on which it was based, we believe that the fairness standards of any reviewing agency or court would be met. For these reasons, it seems that HCFA could appreciably strengthen its review process if it allowed the review panels to exercise a wider range of technical judgement even if this resulted in some disagreements in the scores awarded by individual panel members. In fact, the existence of some (narrow) variance in the scores awarded by panel members would probably indicate to the courts that a broad and thorough examination of all proposals had occurred.

One further issue concerns the type of confidentiality which should govern the proposal judging process. HCFA officials have expressed the opinion that the actual questions contained in the checklist should not be publicly disclosed even though the general content of the list can be inferred from advisory information contained in the RFP. The rationale for nondisclosure is that release of the actual questions would provide undesirable coaching to proposal writers analogous to the release of questions on an exam.

In our opinion, HCFA's interests would be better served by including the current checklist as part of the RFP. In their present form, the checklist questions merely inventory the capabilities of a system that the government wishes to purchase. They are like the questions on a "take home" test where the exam taker is expected to do homework in assembling materials for review.

The objective issue of whether or not a particular system is actually capable of performing to specifications requires a technical judgement beyond the scope of the checklist questions. This later judgement must be made by a technical review panel which has been given a full and complete description of the competing systems. Disclosure of the checklist would aid bidders in presenting the raw material which the review panel requires.

The CHAMPUS program provides an interesting illustration of how a technical panel can be more fully utilized. In the past, the Department of Defense (DOD) used a checklist scoring methodology similar to HCFA's for evaluating proposals to process CHAMPUS claims. Recently, DOD changed its methodology in favor of an approach which required greater use of expert judgement by a review panel. Discussions with CHAMPUS officials have revealed that the checklist methodology was unsatisfactory because it allowed bidders to receive good scores on proposals that offered weak or ineffective approaches. For example, CHAMPUS found that on some occasions the mere assertion in a proposal that a plan existed to do a particular task was sufficient to qualify the bidder for full credit. In some cases, these proposal assertions subsequently proved to be valueless. CHAMPUS officials have told us that their newer methodology is much more satisfactory because expert panels are frequently able to identify the intrinsic merits or weaknesses of a proposed approach.

A second problem with HCFA's current proposal evaluation methodology is that it does not fully use all of the information that is readily available to the government about the technical capabilities of a bidder. The current methodology requires the bidder to show in the proposal that all of the requested work can and will be performed. This means that to score well, a bidder must be sure to discuss every issue that is raised in the RFP.

Failure to address a topic will result in no points being awarded in a particular category.

HCFA's emphasis upon the content of proposals has resulted in some surprising technical evaluations. For example, in the Maine II experiment, one bidder failed to assert that it had a system for determining reasonable and customary charges for certain specific services. Consequently, the bidder's proposal received little credit on this topic. The bidder in question, however, had been a Medicare carrier for many years. It clearly had an operational system for determining reasonable and customary fees and its Annual Contractor Evaluation Report (ACER) indicates "satisfactory" performance (the highest level) in this area of operations.

Similarly, in the Illinois experiment, EDSF received the lowest technical score of all the bidders for EDP operations. This score is surprising considering the firm's reputed industry leadership in this area. Poor proposal writing coupled with excessively narrow use of the review criteria is the most likely explanation for the low score.

We should note that federal contracting policy traditionally places a high emphasis upon the written content of proposals. This approach is intended to discourage fraud or favoritism in the award of contracts by making explicit the grounds upon which the government judges a proposal. The federal government's emphasis upon written proposals is also designed to minimize the cost to the government of assembling information which will serve as the basis of award. Consequently, good proposal writing skills are a necessity for bidding successfully on most federal contracts. However, in the fixed price experiments, HCFA seems to have taken an excessively narrow interpretation of its evaluative role, with the result that it underutilized information on the ability of the offeror to perform that should have been well known to the agency.

Within the framework of existing federal law and regulations, HCFA could easily modify its proposal scoring methodology to make better use of officially known information on offeror capability. One possible modification would be to compare the technical portion of the checklist with a bidder's recent ACERs to see if they are consistent with the proposal score. Unexplainable inconsistencies should be pursued with a follow-up question to the bidder. A second modification would be for the relevant regional office to review the technical scores for both omissions and suspicious assertions of capability.

Firm Experience Criteria

In judging the fixed price proposals, HCFA attempted to take into account several aspects of experience which would be good predictors of a firm's ability to perform successfully as a fixed price carrier. HCFA's methodology took into account the firm's type of experience, length of experience, and quality of performance.

Points awarded for type of experience depended upon whether the firm was a Medicare carrier or had cognate experience in Medicaid, other insurance or claims processing. Table 1.9 lists the different weighting schemes which HCFA used in the experiments. HCFA considered a broad range of claims processing experiences to be relevant--although it defined categories of experience somewhat differently in each experiment. In the Maine II procurement, in particular, HCFA seems to have tried harder to attract new bidders since firms with less direct Medicare experience could earn proportionately more points (70 percent of available points) than they could have won under the earlier experiments. In all of the experiments, points for length of experience were based upon a maximum of 36 months of recent experience.

Table 1.9: Comparison of the Weighting Factors for the Evaluation of Experiments

Factor	Maine I	Upstate New York	Illinois I
Medicare Part B	1.0	1.0	1.0
Medicare Part A	0.8	0.9	0.9
Other federal	0.6	0.8	0.8
Medicaid EDP sub.	0.6	0.8	0.8
Health insurance/ claims processing	0.5	0.7	0.7

Factor	Maine II
Medicare Part B	1.0
Medicare Part A	0.9
Other federal	0.8
Medicaid EDP sub.	0.8
Health insurance B	0.7
Health insurance A	0.7
Other related B	0.6
Other related A	0.6

Factor	Illinois II
Medicare Part B	1.00
Medicare Part A	.85
Other health insurance similar to Medicare Part B	.70
Other related experience	.60

Points for the quality of the firm's performance were based upon several sources of information. For firms with previous Medicare experience, workload related statistics were used as the primary measure. These statistics included payment deductible error rate, occurrence error rate, timeliness of claims processing, and query reject rate. In all of the competitions, all bidding firms had some Medicare experience.[1]

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[1] If insurance companies without Medicare experience had bid, they would have been rated using the Best Insurance Report (a standard source of data on firms that are insurance companies). For noninsurance companies, references would have been sought from firms doing business with the offeror. Proposed subcontractors were also evaluated in a similar manner.

In our previous case study reports, we have noted the difficulty which HCFA potentially faced in attempting to compare divergent types of experience. HCFA's scoring system was essentially an exercise in predicting how well a firm was likely to succeed in a fixed price contract given its past experience and performance. Since HCFA had no historical data to guide its prediction, its selection of weights had to depend on necessarily speculative staff judgement.

Evaluation Factor Leverage

In the fixed price experiments, HCFA's technical and experience evaluation methodologies have tended to produce a narrow range of scores. In contrast, variation in price has generally been more dramatic. These comparative ranges are shown in Table 1.10 by the coefficient of variation (i.e., standard deviation divided by the mean) on scores in each category. In all the experiments except Maine II (with only two final competitors) the coefficient of variation for price is larger than are the coefficients for the experience and technical categories.

Table 1.10: Coefficient of Variation for Components of Proposal Scores for Bidders in the Part B Fixed Price Experiments

	Score Component				
Experiment	Technical	Experience	Price	Total Score	Number of Bidders
Maine I	.14	.10	.20	.11	5
Maine II	.18	0	.02	.05	2
Upstate New York	.04	.11	.12	.05	6
Illinois	.06	.04	.30	.12	5

Source: AAI computations based on HCFA/Bureau of Program Operations (BPO) unpublished proposal score data.

may reflect simply a high technical calibre in all proposals and high level of experience by all bidders. However, it is also possible that the technical and experience evaluation methodologies are not yet refined enough to detect important differences in bidders. In the absence of significant variation of scores in technical experience areas, variability on price will dictate the award regardless of the weight on price.

Evaluation Implementation Capabilities

In our case studies, we have also noted that a carrier's performance in past operations is not a particularly useful predictor of how well it will do at taking over a new territory. In upstate New York, for example, a skeleton crew of senior managers from Buffalo successfully implemented an entirely new operation in Binghamton. The previous lackluster performance of the carrier in Buffalo was a poor predictor of its subsequent success. In Illinois, EDSF, an exceptional firm in the claims processing industry, performed badly during its first two years because it made fundamental errors in selecting its site of operations. It also seriously underestimated the difficulties of taking on the duties of a prime contractor.

Our findings suggest that HCFA should extensively revise its method of measuring experience to take into account a firm's experience in (1) absorbing Medicare workloads from new territories (only a handful of carriers now have experience in this area); (2) implementing new computer systems (the disruptions of changing systems are almost as bad as absorbing a new territory); and in (3) taking over other new claims processing activities (in Medicaid or CHAMPUS). Until these revisions have been made, we recommend that future competitions not place a heavy weight on experience.

Another consideration in evaluating experience and in designing competitions is whether the carrier will be required to set up a new operation or whether the government will allow the carrier to absorb a territory into its existing operation. In the fixed price experiments to date, most winning bidders have initially set up new operations in new locations. There is evidence, however, that implementations are much smoother when an experienced carrier is able to absorb additional claims volume into an existing operation. HCFA's experiences with successful consolidations of the South Dakota, Washington, D.C., Milwaukee, and Delaware territories, as well as the Maine I experiment, show that experienced carriers can absorb another territory without serious problems. In future competitions the government may, therefore, find it advantageous to allow bidders to absorb a new territory into an existing operation. That is, future contracts should not necessarily be bound by the restriction that the carrier must set up operations within the competed territory.

1.6.3 Administrative Costs Within HCFA

The total administrative costs of the Medicare Part B program is the sum of costs incurred by carriers and costs incurred by HCFA itself in supervising carriers and performing overall program management. Throughout this report, we are mainly concerned with how the administrative costs of carriers were affected by the fixed price experiments. However, in this section, we consider how the experiments affected HCFA's own internal administrative costs. At issue is whether reductions in carrier administrative costs were offset by higher internal costs to HCFA.

Our analysis of this issue must necessarily focus on the concept of marginal cost.[1] That is, what additional internal administrative cost (if any) did HCFA incur in administering the fixed price contracts? How would these marginal costs change if competitive fixed price contracting became a routine activity? To explore this issue, Abt Associates asked HCFA regional and central offices to identify their routine costs in administering cost contracts and to estimate the additional level of effort in terms of full-time equivalent (FTE) personnel which they incurred in administering each of the three fixed price contracts.

HCFA regional offices (RO) have informed us that every large carrier requires approximately 1.0 FTE HCFA employee for routine activities such as (1) managing the banking activities among the carrier, the local bank, and the Federal Reserve, (2) preparation of periodic operational reports, (3) negotiating budgets and monitoring administrative expenses during the year, and (4) liaison between the carrier and HCFA central office concerning changes in Medicare regulations and operations. In addition, 1.0 FTE HCFA employee is typically required for on-site monitoring of the claims processing activities of a large carrier. All of the above RO activities with the exception of budget and administrative expense monitoring apply equally to cost reimbursed and fixed price carriers. The HCFA central office role is generally one of formulating and coordinating Medicare policy and regulations on a national level with the regional offices directing carriers on a local level.

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[1] Economic theory recommends that an activity be continued as long as its marginal benefit exceeds it marginal cost. In this case, the marginal benefit is the reduction in carrier administrative cost and the marginal cost is the higher internal expenses encountered by HCFA.

HCFA activities specific to fixed price contracts and in addition to those cited above include (1) the procurement activities of drafting RFPs, scoring proposals, and negotiating contracts, (2) the transition/implementation activities associated with termination of the outgoing carrier(s) and start-up of the new carrier's administrative and claims processing functions, and (3) additional operational oversight activities designed to measure carrier performance in terms of the specific monitoring plans included in the fixed price contracts.

HCFA regional offices with fixed price contracts (New York, Boston, and Chicago) were able to provide us with estimates of the FTE personnel required to administer these contracts. These estimates were developed for three categories of fixed price activities: procurement, transition/implementation, and operations. Table 1.11 provides a summary of these estimates for each contract. In the lower part of the table we have converted FTE figures to dollar equivalents using $60,000 as the value of a person year. (The figure is based upon the value of a professional person year which HCFA used during this period in awarding research contracts.) The table reveals that regional office total costs of monitoring a fixed price contract (line 5) varied widely in terms of both the percentage of effort devoted to each category of work and the total level of effort involved. In terms of procurement activities (line 2), the RO's level of effort ranged from a low of .16 FTE (in New York) to a high of 1.16 FTEs for Maine II. The unusually high figure for Maine II reflects the fact that the Boston RO was heavily involved in developing the CPEP monitoring program which was first used in the Maine II contract. Normal level of effort for procurement thus seems to fall in the range of .16 to .50 FTEs.

Table 1.11: Administrative Cost of HCFA Offices for Fixed Price Contracts

Categories of Effort	Maine I	Illinois	New York	Maine II	Total
1. Months of contract	51	63	47	39	200
	Number of FTE employees required:				
2. Procurement effort	.28	.5	.16	1.16	2.1
3. Transition effort					
a. Code conversion activities	.19	1.1	.31	0	1.6
b. Other transition activity	.65	3.1	2.13	.06	5.94
c. Subtotal	.84	4.2	2.44	.06	7.54
4. Operational effort	9.8	26.0	2.89	7.2	45.89
a. Operational months of contract	46	51	36	36	169
b. FTEs per contract year	2.56	6.12	.96	2.4	3.26
5. Total RO effort—life of contract	10.92	30.7	5.49	8.42	55.53
6. RO effort for equivalent size cost reimbursed carrier(s) over life of contract	8.0	12.66	6.48	6.0	33.14
7. Additional effort of fixed price experiments in HCFA regional offices (line 6 minus line 5)	2.92	18.04	(.99)	2.42	22.39
8. Ratio of RO effort on cost contract to effort on fixed price contract (line 6/line 5)	.73	.41	1.18	.71	.60
9. Additional effort of HCFA CO	5.0	6.0	5.0	4.0	20.0
10. Combined additional effort of CO and RO over life of contract (line 7 plus line 9)	7.92	24.04	4.0	6.42	42.38
11. Average combined effort per contract year	1.86	4.58	1.02	1.97	2.54
12. Dollar value of additional effort over life of contract at $60,000/FTE	$475,200	$1,442,400	$240,000	$385,200	$2,542,800
13. Dollar value of additional RO and CO cost per contract yea	$111,600	$274,800	$61,200	$118,200	$152,574

RO activities during the transaction period (line 3C) ranged from a low of .06 FTEs for Maine II to a high of 4.2 for Illinois. These extremes reflect the fact that the Illinois experiment was marred by a difficult transition that resulted in serious delays in claims processing. The Maine II contract in contrast was almost effortless because the incumbent fixed price carrier won the recompetition. The experience of Maine I (.84 FTE) and New York (2.44 FTE) are perhaps a better guide to the normal range of effort for a successful transition. In both cases the transition was marked by minor disruptions in service which required RO involvement. The lower level of cost for Maine I reflects the fact that the carrier conducted most of its claims processing for Maine from its established operating site in Boston. Costs for New York reflect the fact that three territories were consolidated and the carrier moved its entire claims operation to another city.

Ongoing monitoring during the operational phase of a contract displays the least volitality. The relatively untroubled Maine I, Maine II, and New York required (line 4b) 2.56, 2.4, and .96 FTEs per year, respectively. The Illinois contract with 6.12 FTEs required easily twice as much monitoring effort due to problems with contractor performance.

The total effort for RO administration of competitive fixed price contracts (line 5) ranged from 30.7 FTEs for the 63 month Illinois contract to 5.49 FTEs for the 47 month New York contract.

The typical experience of the competitive fixed price contracts is that they required more RO effort than did equivalent negotiated cost contracts. To determine the net (marginal) costs of administering these contracts, we asked the ROs to estimate the level of effort that they would have spent on administering an equivalent size cost reimbursed contract over the same time period. Estimates of these equivalent effort levels (line 6) were 8.0 for Maine I, 6.0 for Maine II, 12.66 for Illinois, and 6.48 for New York. In the Maine contracts, the ROs effort on cost contracts was only 70 percent of its effort on the fixed contracts; in Illinois cost contracts required only 41 percent as much effort.

The New York contract is an exception; it required about one year less (.99 FTE) RO effort than would an equivalent cost contract. This result is in part due to the economies of consolidating three territories into one. If we average the experience of the four contracts, cost contracts were estimated to require 60 percent of the RO effort used for administering competitive fixed price contracts.

At the central office (CO) level, HCFA was unable to provide us with similarly detailed estimates of CO effort levels for each of the experimental contracts. Discussions with HCFA officials revealed that the most significant area of extra effort was the process of releasing an RFP and judging the resulting proposals. Discussions with HCFA officials suggested that approximately .5 FTEs are required for each of these two activities. HCFA officials were not able to provide us with detailed estimates of effort levels required to monitor the fixed price contracts or levy liquidated damages. However, it seemed unlikely to them that the central office level of effort would exceed 1.0 FTE per contract per year given the experience of the regional offices.

A rough estimate then of the central office marginal cost of administering competitive fixed price contracts is that two extra FTEs of effort are spent on the first year of a contract (.5 for procurement, .5 for proposal judging and award, and 1.0 for general administration) and one additional FTE per year is used for each subsequent contract year. If we add these addition CO costs to the additional RO costs, we find that the total additional effort of HCFA for the experimental contracts (line 10) was 7.92 FTEs for Maine I, 6.42 for Maine II, 4.0 for New York, and 24.04 for Illinois.

Evaluating a person year at $60,000 and annualizing these costs yields the result that the additional RO and CO cost per competitive fixed price contract year (line 13) ranged from a low of $61,200 in New York to a high of $274,800 in Illinois. The average additional annual cost for the four experiments was $152,574.

Consideration of the components of these estimates indicates areas where some of the cost should be eliminated or greatly reduced in the future. For instance, HCFA has recently issued regulations mandating a uniform medical procedure coding and terminology system for Medicare carriers. Once all carriers have converted to uniform national procedure codes the expense at the regional office level associated with the code conversions (listed under 3,A in the estimates in Table 1.11) should be eliminated. Also, if HCFA continues to base its fixed price contract monitoring plans on CPEP as it did with Maine II and is doing in the Part A fixed price experiments, its operational monitoring expenses should begin to approximate those for cost reimbursed carriers, except in cases where exceptional problems develop such as occured in Illinois. In our opinion, the CPEP carrier monitoring process combined with the elimination of the budget negotiation activity (often a time consuming and trying experience) should result in less HCFA monitoring effort during the operational period. If these predictions prove true, only the procurement costs and those other costs associated with the transition will remain as identifiable one-time costs to HCFA for implementing fixed price contracts.

In summary, competitive fixed price contracts have involved more internal administrative expenses for HCFA than would equivalent cost contracts. The average annual additional effort for the three experiments in our study was 2.54 FTEs or $152,574 per year. Total additional effort for all of the experiments amounted to 42 FTEs or $2.5 million. These higher levels of effort must be judged against the reduction in carrier administrative costs which HCFA achieved. In the following chapter, we find that the experiments reduced carrier administrative costs incurred by HCFA by a total of at least $45 million. Our findings suggest that the higher internal administrative cost which HCFA incurred from conducting the fixed price experiments was well spent. On the average, each additional administrative dollar spent by HCFA to undertake and monitor the experiments lead to reductions of about $18 in carrier administrative costs paid by the government.

2.0 CARRIER EFFICIENCY AND EFFECTIVENESS UNDER FIXED PRICE

2.1 Introduction

This chapter analyzes the cost and technical performance of Medicare Part B carriers and the role which fixed price contracts have played in changing the efficiency and effectiveness of carrier operations. The history of the Part B program shows a steady decrease in claims processing cost and gradual improvement in other areas of carrier performance. Experiments with competitive fixed price contracts seem to have accelerated these favorable trends.

In this chapter, we begin with a review of carrier performance for the fiscal years 1976-1981. Contrasts and comparisons are drawn between this period and earlier years which have been analyzed by previous studies. Major attention in this review is given to topics that have been of concern to the Medicare program throughout its history. These topics include: (1) claims processing costs, (2) speed and accuracy of payment, (3) levels of benefit payments, (4) trends in input prices, (5) relative performance of Blue Shield versus commercial carriers, (6) the efficiency of carriers using various computer systems, and (7) economies of scale. Each of these topics is discussed in turn. Following this discussion, we use econometric methods to explore how fixed price contracts have affected carrier performance while taking into account the effects of these other factors.

2.2 Historical Performance of Part B Carriers

2.2.1 Claims Processing Costs

Before we present our analysis of the effects of fixed price contracts, it will be helpful to review the historical performance of Medicare Part B carriers. Table 2.1 shows trends in several performance

Table 2.1: Part B Carrier Performance Indicators (all dollars in constant 1981 dollars)

Fiscal Year	Cost Per Claim[a]	Mean Processing Time[b]	Payment Deductible Error Rate[c]	Benefits Per Enrollee[a]	Administrative Costs as a Percent of Benefit Payments
1968	$6.65	N.A.	N.A.	$163	7.5
1969	$7.04	N.A.	N.A.	$175	7.8
1970	$6.72	N.A.	N.A.	$180	8.4
1971	$6.56	N.A.	N.A.	$178	9.0
1972	$6.36	20.86	N.A.	$173	8.8
1973	$5.87	19.41	N.A.	$180	9.0
1974	$5.38	17.91	N.A.	$177	8.9
1975	$4.86	N.A.	N.A.	$195	8.4
1976	$4.61	15.2	3.38	$216	7.9
1977[d]	$4.13	13.8	2.42	$304	7.0
1978	$3.69	13.0	2.08	$268	6.3
1979	$3.41	13.2	2.15	$275	5.8
1980	$2.84	13.0	2.17	$288	5.6
1981	$2.62	12.2	1.90	$318	4.8

[a] AAI computation based upon HCFA/BPO Analysis of Intermediaries' and Carriers' Administrative Costs, various issues.

[b] HCFA/BPO Quarterly Part B Processing Time Report.

[c] AAI computation based upon HCFA/BPO Quality Control Reports.

[d] Includes transition quarter.

NA: Not available

statistics for the fiscal years 1968 to 1981. (All dollar figures in the table are in constant 1981 dollars.)

The most striking feature of the Part B program is the steady decline in the average cost of processing a claim. In terms of the purchasing power of the dollar in 1981, the average cost per claim (total administrative cost divided by claims processed) fell from $6.56 in 1971 to $2.62 in 1981. This represents an eight percent continuous rate of decline in the real cost of processing claims. The decline in real cost is a notable achievement in light of the rapid inflation of the period.

Two explanations are commonly offered for the decline in Part B claims processing costs. One explanation is that technological changes in the application of computers have made it possible to process claims ever more efficiently. Evidence for this argument is found in the rising productivity of claims processing workers and the declining costs of data processing. In 1971, it was possible for the average worker to process only 3,716 claims per year compared to 10,293 claims per year in 1981.[1] Furthermore, data processing costs per claim in FY1971 were $1.98 (in terms of 1981 dollars) and $.59 per claim in FY1981. Labor productivity and data processing costs per claim have thus improved at rates (11 percent compounded for labor productivity and 13 percent compounded for data processing cost reductions) which are even faster than the rate of decrease in cost per claim. Declining computer costs and concomitant increases in labor productivity are thus important contributors to declining administrative cost per claim.

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[1] See Analysis of Intermediaries' and Carriers' Administrative Costs, FY1981, Table B-7, and FY1971, Table B-6.

carriers is that the government in recent years has worked to remove poorly performing carriers and to tighten program performance standards. Evidence of a tougher Medicare program is found in the fact that there were 50 Part B carriers in 1968 and only 41 in 1982. Examination of HCFA's annual reports reveals that terminated carriers had consistent records of high cost performance. Three of the areas served by high cost carriers are now operating under experimental fixed price contracts designed to test further the ability of carriers to deliver services at a lower cost.

There has been evidence in earlier special studies which suggests that the government could have moved more forcefully to tighten program standards. In their respective criticisms of the early Medicare program, both the GAO (1979) and the Perkins Committee (1974) noted an unacceptably wide variance in costs among the carriers. The Perkins Committee in particular attributed the wide variance primarily to differences in managerial efficiency on the grounds that variation in factors such as wages or the size of carrier operations were not able to explain cost variation satisfactorily.

Similar patterns of cost variation still exist. A strictly statistical comparison of administrative cost per claim, for example, shows that claims costs vary as much among carriers today as they did during the early years of the program. This suggests that a group of high performance carriers have been associated with many of the Part B improvements while another group of relatively inefficient carriers is still bringing up the rear in terms of achieving cost reductions. The government's actions to date could be characterized as a program of eliminating only the most flagrant examples of high cost performance with the result that the variance in cost has at least not increased over time.[1]

2.2.2 Speed and Accuracy of Payment

In recent years, there have also been improvements in the speed and accuracy of claims processing which have not been as dramatic as the historical trend toward lower cost per claim. As shown in Table 2.1, mean processing time (i.e., the average number of days it takes to process a claim from initial receipt to final claim disposition) has gradually declined from 20.9 days in 1976 to 12.2 days in 1981.[2] Faster processing time reduced the time that beneficiaries and providers must wait for reimbursement. The variation in processing time for the carriers has also declined over this period, indicating that carriers have moved toward greater uniformity in the efficiency of their operations.

Improvements in accuracy have accompanied increases in the speed of processing. This is shown by the payment deductible error rate which has

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[1] The ratio of the highest cost per claim to the lowest cost per claim was 3.46 in FY1971 and 2.05 in FY1981. This declining ratio suggests that the worst cases of high cost carriers are being weeded out. A more rigorous statistical test, however, is to examine the trend over time in the coefficient of variation for cost per claim. (The coefficient of variation is defined as the standard deviation divided by the mean.) The coefficient of variation for cost per claim is as follows.

Year	71	72	73	74	75	76	77	78	79	80	81
CV	.20	.17	.14	.14	.14	.17	.17	.14	.17	.18	.18

A Chi-square test decisively rejects the hypothesis that change has occurred in the coefficient of variation. The test is based on comparing the value of the coefficient of variation for FY1971 (.20) to each of its values in subsequent years.

[2] The decline in processing time is statistically significant at the 10 percent level. This is based on a Chi-square test comparing mean processing time in 1972 (20.86) with its value in subsequent years.

declined from 3.38 percent in 1976 to 1.90 percent in 1981.[1] (The payment deductible error rate measures the number of payment related errors that were found in a statistical sample of a carrier's processed claims.) This decline indicates that carriers today have cut almost in half the number of errors they make in determining payments. Both of these trends toward better speed and accuracy are consistent with the argument that greater automation in claims processing and more extensive monitoring of the program by the government have led to qualitative improvements in productivity.

2.2.3 Benefit Payments

A further indicator of improvement in the administration of the Part B program is the steady decline which has occurred in administrative costs as a percentage of benefit payments. In the early 1970s, administrative costs were eight to nine percent of the value of benefit payments, while a decade later these costs are in the range of five to six percent. By itself, the relative decline in administrative costs could be merely an indicator of the explosion in medical care prices which have led to higher benefit payments. However, the other favorable indicators of lower real cost per claim, faster processing, and slower error rates support the argument that improvements in administration are at least partly responsible for the favorable trend in administrative cost relative to benefit payments.

The importance of seeking continued improvement in the administration of Medicare Part B is illustrated by the rising level of benefit payments per enrollee. In the early 1970s, enrollees received reimbursement for services in the amount of $170 to $190 per person per year (in terms of 1981 dollars). Today, enrollees collect annual benefits of roughly $300 per person.

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[1] The decline in the payment deductible error rate is statistically significant at the five percent level using a Chi-square test.

The trend toward higher Part B benefit levels reflects national trends in medical prices and utilization. In recent years, national trends in medical prices suggest that roughly half of the increase in Medicare benefit payments per enrollee is due to inflation, while the other half reflects a real growth in utilization. This is shown in Table 2.2, where the rate of growth in benefit payments per enrollee, unadjusted for inflation, is 16 percent. Adjustments for inflation can account for roughly half of this increase, so the remainder reflects a real increase in the utilization of physician and related services.

Table 2.2: Benefits Per Enrollee in Medicare Part B, Fiscal Years 1976-1981

Fiscal Year	Actual Dollars	In 1981 Dollars Adjusted for General Inflation Only*	In 1981 Dollars Adjusted for Inflation in Physicians' Fees**
1976	153.37	222.27	240.43
1977	184.89	253.27	265.22
1978	210.82	270.28	279.23
1979	242.80	285.65	295.52
1980	291.22	313.14	319.56
1981	344.73	344.73	344.73
Continuous Rate of Growth	16%	8%	7%

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*Adjusted using GNP Implicit Price Deflator.

**Adjusted using the Consumer Price Index for physicians' fees.

In the next several sections, we explore trends in factors which are likely to have contributed to the generally favorable performance of Medicare carriers. We begin with a discussion of trends in input prices. This is followed by discussions of the comparative performance of carriers who are either Blue Shield Plans or commercial insurance companies. Next, we discuss the role of carrier size and the existing evidence that economies of scale may be important. This is followed by a review of carrier performance in relation to the computer systems used by the various carriers.

2.3 Trends in Input Costs

In this section, we will review some major trends in the costs of labor and materials which have been experienced by Part B carriers. Our discussion highlights factors which have helped or hindered the favorable trends in cost and performance discussed in the previous section. Following this section, we consider other organizational factors which are also thought to explain trends and variations in carrier performance.

Medicare carriers, like all industries, have had to adapt to the general inflation which prevailed during the late 1970s. Cost reimbursed carriers have been in an ambiguous position in facing inflation. In principle, the carriers are reimbursed by the government "for cost"; they are supposedly able, therefore, automatically to pass on to the government whatever increases in wages and input prices they experience. However, the process of "passing on" inflationary costs is not painless to the carriers. Carrier budgets are negotiated with HCFA on an annual basis. Proposed increases in wages, rent, and other expenses usually have had to be negotiated subject to federal guidelines. In the negotiation process, carriers have been under pressure to substitute away from using inputs which have experienced relatively high rates of inflation.

In Table 2.3, we show some comparative trends in input prices for labor, rent, and computer services as experienced by Medicare carriers. The

Table 2.3: Trends in Major Input Costs for Part B Carriers, 1976-1981[a] (all figures in constant 1981 dollars)

Fiscal Year	Average Weekly Salary, Clerical[a,b]	Rental Expense[a,c]	Large Computer Cost Index[d] (1981=100)	Small Computer Cost Index[d]	Average Annual Salary, Senior Systems Analyst[e]
1976	$158	$6.215	635	351	$28,867
1977	$161	$6.928	446	278	$29,462
1978	$161	$7.527	309	218	$29,507
1979	$161	$7.860	212	169	$29,119
1980	$160	8.289	144	109	$28,463
1981	$158	9.069	100	100	$27,664
Continuous rate of increase (decrease)	(.001)	.07	(.37)	(.27)	.03

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[a] Weighted mean for all carriers, weighted by claims processed.

[b] Area Salary Differentials (Life Office Management Association [LOMA]), various years 1976-1980.

[c] "Total Rental Income" in dollars per square foot. Source: Downtown and Suburban Office Building Experience Exchange Report, 1976-1970 (Building Owners and Managers Association International, [BOMA]).

[d] Indices developed by author from data in Branscomb, Lewis M. "Electronics and Computers: An Overview," and Birnbaum, Joel S. "Computers: A Survey of Trends and Limitations," Science, Volume 215, February 12, 1982, pp. 756 and 865.

[e] Source: Datamation, various issues.

table presents input prices averaged across all carriers[1] where prices are in constant 1981 dollars.[2] As measures of labor cost, we have the average weekly salary of clerical workers and the average annual salary of senior systems analysts. Clerical workers comprise the majority of a carrier's workforce while senior system analysts are key personnel for computer operations. Carriers who fail to pay wages at these levels are likely to experience higher than average attrition and they may have difficulty in recruiting new staff of comparable quality. As shown in Table 2.3, clerical salaries have remained virtually constant since 1976 after adjusting for inflation, while system analysts salaries have fluctuated slightly up and down.

Office space expense is also an important component of carrier costs. Medicare carriers may either rent commercial office space or they may charge the government rent for occupied space leased from their parent organization. In terms of economic theory, charges for this leased space should reflect the market rent which the firm could collect if the space were leased on the open market. In practice, charges for leased space are determined by allocating the mortgage and operating cost of a building according to the amount of floor space used by the Medicare carrier. In Table 3.3, we have tried to measure prevailing market rents in terms of the dollars per square foot of floor space as reported by the Building Owners and Managers Association International. As shown in the table, rental expenses per square foot increased from $6.22 in 1976 to $9.07 in 1981 as measured in inflation adjusted dollars. That is, the cost of rented space increased more rapidly than did general inflation.

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[1] Mean, weighted by claims processed.

[2] Dollar figures were deflated by the Gross National Product Implicit Price Deflator.

Computer equipment is also an important input in Medicare claims processing. While it is widely acknowledged that computer costs are rapidly falling, indices of computer costs are difficult to construct because machine configurations are rapidly changing. In Table 2.3, we present two indices of computer cost, one for large mainframe computers and the other for minicomputers. The indices are based upon the total cost of executing a standard number of instructions using the most modern equipment. Both indices show rapid declines in computer costs in spite of the offsetting effects of general inflation.

Examination of these trends in input costs thus shows that carriers were likely to have been under pressure to economize on the use of office space and to substitute away from labor in favor of computerized operations during the 1976-1981 period. These trends support the frequently heard argument that the declining cost of Part B claims processing has been made possible largely by favorable trends in the technology of claims processing.

2.4 Blue Shield Versus Commerical Carriers

In this section, we review previous studies which have dealt with the relative performance of Part B carriers who are either Blue Shield Plans or commercial insurance companies. Our review suggests that the comparative performance of the two types of carriers may be narrowing. Future performance improvements in Part B are not likely to depend upon shifting workloads away from one type of carrier toward the other.

Previous studies of the Medicare program and of the insurance industry in general have considered the relative efficiency of Blue Shield or Blue Cross Plans compared to commercial insurance companies. Early research by Frech (1973) on Medicare Part B carriers[1] found:

> The evidence suggests that private property firms are more efficient as Medicare processing intermediaries than nonprofit firms. Nonprofit firms incur processing costs per dollar processed which are 45 percent higher. Their processing takes 80 percent longer. Further, nonprofit firms make 140 percent more errors per dollar processed. These differences are significant at very high levels of confidence.

Frech attributed the lower efficiency of Blue Shield carriers to their nonprofit organization. He theorized that Blue Shield Plans are encouraged to retain a substitute for profit in the form of a slower work pace, less attention to accuracy, and more pleasant offices and working conditions.

It should be noted that Frech's analysis was based upon Part B data for January to March 1970. Frech considered it to be important that he was analyzing a period during which the government had made no attempts to eliminate poorly performing carriers. He hypothesized that in a benign climate of this sort, any "natural" inefficiencies of nonprofit firms (if they exist) would be most apparent. An implication of Frech's analysis is that tougher administration of the Medicare program would cause inefficient firms either to improve their performance or to exit entirely from serving as Medicare carriers.

A more detailed study of Medicare carriers by Blair and Vogel (1975) also found that Blue Plans are less efficient than commercial insurers. Their analysis involved comparisons of Medicare Part B administrative costs among Blue Shield and commercial carriers using data from FY

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[1] Frech consistently calls Part B carriers "intermediaries" although this term properly applies only to firms which process Part A bills.

1972.[1] Blair and Vogel found some evidence that commercial plans had lower administrative costs[2] than Blues after adjusting for the effects of claims volume, assignment rate, computer systems, wages, and other factors. However, their findings were often not statistically significant and they were accordingly cautious about interpreting their findings to mean that Blue Shield carriers are run with more "managerial slack" than are commercial carriers.[3]

One important finding of Blair and Vogel was that performance differences between Blues and commercials were smaller in Medicare operations than they were in other lines of business. Blair and Vogel hypothesized that Medicare program regulations made it difficult for the Blues to create administrative slack because the regulations standardized the definition of a claim and its processing procedures. In other lines of business, Blues enjoyed substantial tax and regulatory advantages which allowed them to enjoy more managerial slack. The Blair and Vogel study implied that the performance of Blue and commercial carriers would become more similar as program rules tightened. A hypothesis that we examine later in this chapter is whether commercial carriers still exhibit lower costs than Blues when carriers face similar circumstances.

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[1] A parallel comparison was not possible for Part A intermediaries because commercials mainly processed bills for extended care facilities while Blues mainly dealt with hospital bills. The different "outputs" of Blues and commercials thwarted a comparison of their processing cost.

[2] Three ratios measuring cost were used: (1) administrative cost divided by administrative cost plus benefit payments; (2) administrative costs divided by claims processed; and (3) administrative costs divided by the number of Part B enrollees residing in the carriers' territory. Only the last measure showed statistically significant differences between commercials and nonprofits.

[3] In another paper, Blair, Ginsburg, and Vogel (1975) examined the administrative costs of Blues compared to commercials in terms of their regular lines of health insurance business. They found that Blue Plans generally had higher administrative costs (relative to benefit payments) than did commercial insurers. Blue Cross Plans, in particular, were found to be too small in size so that they failed to achieve potential economies of scale. Blair, Ginsburg, and Vogel interpreted the relatively poor performance of the Blues as evidence that nonprofit firms consume "profits" in the form of managerial slack.

Our examination of more recent Medicare Part B data suggests that differences between Blues and commercials in cost per claim have largely disappeared. Furthermore, no differences are apparent in terms of mean processing time and the payment deductible error rate. A puzzling pattern does exist between Blues and commercials, however, in terms of benefit payments per enrollee. Table 2.4 compares Blues and commercials for fiscal years 1976-1981 in terms of their mean values for cost per claim, processing time, payment deductible error rates, and benefits per enrollee. For the first three measures, there are no statistically significant differences in the levels between the Blues and commercials.[1] Both groups also show steady improvements over the period.[2]

In terms of benefit payments per enrollee, Blues and commercials display a puzzling pattern in that the mean value of this ratio is higher for the Blues in every year. In most years, the difference between the means in the level of this ratio is too small to be statistically significant.[3] However, the pattern of the mean for Blues always being higher than the

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[1] Blues and commercials were compared using a Chi-square test to determine if there were significant differences among them for the period FY1976-1981.

[2] The only notable exception to this finding is that the commercials have a more consistent pattern of improvement than do the Blues in terms of cost per claim. This is shown by the fact that the coefficient of variation in cost per claim among commercial carriers has narrowed over time while the coefficient of variation among Blues has not. For example, the coefficient of variation for commercials on cost per claim declined from .16 in 1976 to .10 in 1981; for Blues, the coefficient has remained virtually unchanged from .18 in 1976 to .16 in 1981. This trend suggests that those commercial firms which have been inefficient as Medicare carriers have been more eager to move on to other business opportunities than have Blue Plans with equally poor performance records.

[3] Based upon a two-tailed t test.

Table 2.4: Mean Performance Statistics for Blue and Commercial Carriers in the Part B Program, Fiscal Years 1976-1981 (standard deviation in parentheses)

Fiscal Year	Cost Per Claim		Mean Processing Time		Deductible Error Rate		Benefits/Enrollee	
	Blue	Commercial	Blue	Commercial	Blue	Commercial	Blue	Commercial
1976	4.60 (.18)	4.62 (.16)	14.96 (.38)	15.23 (.49)	3.62 (.96)	3.13 (.97)	242 (.34)	199 (.34)
1977	4.03 (.12)	4.28 (.21)	13.76 (.24)	13.03 (.34)	2.61 (.59)	2.20 (.55)	273 (.37)	229 (.34)
1978	3.63 (.14)	3.77 (.14)	13.46 (.35)	12.24 (.35)	2.4 (.41)	1.7 (.47)	292 (.35)	245 (.36)
1979	3.41 (.15)	3.33 (.14)	13.16 (.32	11.9 (.33)	2.3 (.40)	1.98 (.52)	303 (.37)	254 (.36)
1980	2.96 (.12)	2.91 (.09)	12.9 (.43)	12.9 (.37)	2.03 (.36)	2.2 (.45)	336 (.32)	293 (.31)
1981	2.76 (.16)	2.57 (.10)	13.84 (.42)	11.2 (.36)	1.8 (.37)	1.9 (.58)	359 (.26)	334 (.37)
X^2 Comparing means	.04		.92		.51		44.40+	
X^2 Comparing coefficients of variation	15.73*		.07		.13		.39	

+ Significant at the 95 percent level.
* Significant at the 99 percent level.

mean for commercials is statistically significant.[1] That is, Blues as a group tend to show up on the high side of the distribution of benefits per enrollee while commercials tend to show up on the low side. This pattern could indicate consistent overpayment by Blues or consistent underpayment by commercials. Such a pattern might also indicate philosophical differences in the way that Blues and commercials interpret Medicare regulations, or in the way that they perform utilization review.

An alternative explanation for these differences, however, may be simply that Blues are serving areas with higher levels of prevailing medical prices or higher levels of utilization by enrollees. Either higher prices or higher utilization could account for a persistent pattern of higher benefit payments by Blues. In section 2.15, we explore in more detail the variation in benefits per enrollee among carriers. There we find that the apparent difference between Blues and commercials seems to disappear after we take into account the effects of area patterns of medical utilization.

2.5 Economies of Scale

Several studies have explored the issue of whether administrative cost per claim declines as the size of a carrier's operation increases. The issue is important because if such economies of scale exist, the government could reduce Medicare administrative costs by eliminating some carriers and consolidating their territories. In an evaluation context, the issue is also important: apparent cost savings in fixed price sites may reflect economies which resulted from territory consolidation rather than economies stemming from the contractual incentives. HCFA at various times has in fact proposed to consolidate territories. Furthermore, it is widely acknowledged in the claims processing industry that economies of scale occur. However, only weak statistical evidence has been produced so far to support this belief.

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[1] Based upon a Chi-square test.

The most extensive statistical study to date on the issue of economies of scale is that performed by Blair and Vogel. Their study used multiple regression analysis to see how claim processing cost varied in relation to the number of claims processed.[1] They found virtually no evidence of economies of scale. Only one of their six reported regression equations (with administrative cost per enrollee as the dependent variable) shows any statistically significant economies of scale. Furthermore, their regression analyses for Part B carriers were seldom able to explain more than 30 percent of the variation in carrier costs.

A similar analysis of administrative cost per claim was conducted by the Perkins Committee using data for the years 1969 to 1973. Results again found no statistically significant evidence of economies of scale. Like Blair and Vogel, the Perkins Committee also found that their regression equations had weak explanatory power (i.e., low R^2s).

Frasca and Leung (1977) have also studied economies of scale in Medicare data processing. Their analysis was based upon carrier data for 1976. They found no statistically significant relationship between cost per claim and claims volume. Their analysis, however, did not control for as many other variables affecting carrier performance as did the Blair and Vogel analysis.

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[1] Factors such as the assignment rate, type of computer system, salary levels, average dollar size of a claim, percentage of claims investigated to develop information, and the average number of claims submitted per physician were included in their analysis. In addition, three different measures of claims cost were analyzed. These were: (1) administrative cost per claim, (2) administrative cost as a percentage of administrative cost plus benefit payments, and (3) administrative cost per enrollee in the carrier's service area.

In spite of these statistical studies, the belief is widely held in the claims processing industry that economies of scale exist. Some evidence for this belief is found in a report by the General Accounting Office (1979) which studied the extent of economies of scale. Unlike the previous statistical studies, the GAO relied upon hypothetical cost estimates prepared by six Part B carriers serving parts of New York, California, and Texas. Each carrier was asked to estimate how much its costs would increase if it had to absorb large additions in claims volume. Estimates assumed that there were no changes in technology, in the carrier's computer system, or in fixed overhead. That is, carriers assumed that only labor, floor space, and similar semi-fixed costs could vary. Each of the carriers indicated that it could absorb large additional claims volume and achieve lower average total costs per claim. That is, the incremental cost of absorbing new claims volume was less than a carrier's initial average cost.

The GAO reported that there appeared to be no limit to the ability of carriers to reduce costs by expanding volume. Over the range of assumed volume increases, carriers estimated that costs would steadily fall. GAO also pointed out that its assumptions did not allow for all of the economies that might be achieved by increasing territory size such as renegotiation of computer subcontracts or major relocation of facilities.

Some circumstantial evidence is available in HCFA's regularly published program statistics to suggest that cost per claim may be lower for carriers with larger claims volumes. Table 2.5 shows the mean cost per claim for carriers in each of the four "peer groups" which HCFA uses to classify carriers by size. Note that the carriers in the peer group with the smallest claims volume (300 thousand to 1 million claims) have an average cost per claim of $2.89. The next three groups of carriers with larger claims volume each have lower cost per claim ranging from $2.75 to $2.62. These figures hint that costs may decline with claims volume although only peer groups 4 and 2 show a statistically significant difference in their mean cost per claim. Much of our statistical analysis, in Section 2.8, is spent in determining if this hint of a relationship between cost and scale is indeed present after adjusting for factors other than claims volume (e.g., wages, assignment rates) that should also affect claim processing costs.

Table 2.5: Administrative Cost Per Claim by Peer Group for Part B Carriers, Fiscal Year 1981 (standard deviation in parentheses)

Peer Group	Number of Carriers	Range of Claims Volume (Millions)	Average Cost Per Claim	Range in Cost Per Claim	
				Highest	Lowest
1	12	5 - 12	$2.69 (.40)	$3.61	$2.20
2	13	1.8 - 4.8	$2.62 (.26)	$3.25	$2.14
3	8	1.2 - 1.8	$2.75 (.53)	$1.91	$2.53
4	9	.3 - 1	$2.89+ (.22)	$3.14	$2.39

Source: HCFA, Analysis of Intermediaries' and Carriers' Administrative Costs, October - September, fiscal year 1981, Table B-6.

+ Value is different from other carriers in peer group 2. Statistical significance of 99 percent.

2.6 Computer Systems

As we have noted earlier, falling computer costs and rising productivity have been important factors contributing to the historical trend toward lower Part B claims processing costs.

As computer systems have become more sophisticated, they have increased the productivity of not only main line claims processing but also support activities such as utilization review.

The computer's intimate involvement in virtually all phases of claims processing makes it dangerous to analyze computer processing costs apart from the use of other inputs. For example, one of the striking features of Part B claims processing is that narrowly defined "computer costs" (rental or purchase costs for a mainframe, its software, and support technicians) have been falling on a per claim basis over a period where the computer has actually been doing more work in the sense of running more logical checks or performing more arithmetic operations per claim. Computers have also served as substitutes for manual operations performed by clerical staff. Discussions with Medicare carrier managers, for example, have revealed that some major computer system upgrades (replacement of older software and hardware with new configurations) have allowed a reduction of 30 to 50 percent in clerical staff once the new system is fully operational.

Since the beginning of Medicare, carriers have had several choices in their selection of computer systems both in terms of hardware and software. One option always open to a carrier has been to operate an "in-house" system where the carrier develops or supports its own software. This approach allows the carrier maximum control over computer operations but it can involve considerable expense in writing, debugging, and maintaining software. In any year, in-house systems have been maintained by 8 to 12 carriers with Blues and commercials about equally represented.

During the period from 1966 to 1975, the federal government sought to reduce aggregate software costs to the Part B program by developing and maintaining a "Model B" software package. The package was offered as "public domain" software, available to carriers without charge. During the period when the government supported the system, roughly half of all carriers used the Model B system. Commercial carriers were about twice as likely to use Model B as were Blue Shield Plans.

In addition to using in-house or Model B systems, carriers have been able to purchase or subcontract for software systems maintained by private vendors. Typically, the subcontracting arrangement gives the carrier ownership rights to system software upon expiration of the subcontract. Carriers who choose not to renew a subcontract thus have the option of bringing in-house the software of their former subcontractor. Carriers who bring software in-house face the cost of maintaining it thereafter.

The best known and most widely adopted private system is that offered by Electronic Data Systems (EDS) which has been used by slightly more than 20 percent of all carriers. Blue Shield carriers tend to use EDS somewhat more often than commercial carriers in a ratio of roughly three to two. The majority of carriers have chosen to employ EDS as a subcontractor responsible for all software and hardware operations. A small number of Blue Plans (three or four in any year) have brought the EDS system in-house. EDS officials have pointed out that there have been roughly a dozen versions of the EDS system over the life of the Medicare program. Several of these versions are still in use. The most recent version is the EDS Advance Medicare System (AMS) which has been used in all three of the fixed price experiments.

Other private software developers are Optimum Systems Inc. (OSI), Applied Systems Development Corp. (ASDC), Management Data Communications Corp. (MDCC), Bradford systems, and the McAuto system offered by a subsidiary of MacDonald Douglass Aircraft. A merger has recently occurred between OSI and Bradford. These other software systems have served about 15 percent of Medicare carriers. The ASDC system has been used by Blue Shield of Rhode Island and the MDCC system has been used at various times by a consortium consisting of the Blue Shield Plans for North and South Dakota, Milwaukee, Wisconsin, and Illinois.

Previous studies of Part B carriers have explored the issue of whether carriers who use particular computer systems display lower costs or better performance than other carriers. Blair and Vogel explored this issue in terms of the relation of computer systems to three measures of carrier performance: cost per claim, cost per enrollee, and cost as a percentage of cost plus benefit payments. They used regression analysis to analyze data on carriers for 1972. They found that computer systems had no statistically significant impact on these measures of performance. The Perkins Committee similarly conducted a regression analysis of variations in carriers' cost per claim for the years 1967 through 1973. They found no significant relation with computer systems. Since these analyses are now somewhat out of date due to rapid technical change, we will reexplore this issue here and in Section 2.11.

Table 2.6 lists the mean values (weighted by claims processed) of several carrier performance statistics for the 1976-1981 period sorted by the type of computer system which carriers were using. The table thus gives the average performance of the carriers that used various computer systems. (All dollar figures in this table are in constant 1981 dollars.) The row labeled "total carrier years" records the total number of years that each system has been used. The three more popular computer systems were the in-house (59 carrier years), Model B (156 carrier years), and EDS (82 carrier years) systems.

In terms of administrative cost per claim processed, carriers which used the OSI/Bradford or ASDC systems during the 1976-1981 period tended to have lower costs, an average of $3.03 and $2.90, respectively, than other carriers. These systems, however, were used by only a comparatively small number of carriers (26 and 16 carrier years, respectively). Among the more widely used systems, EDS users had the lowest cost per claim of $3.35 followed by the Model B system with $3.50. Carriers with in-house operations had comparatively high cost per claim of $3.70. Carriers with the highest cost per claim ($4.41) were the small number of users of the MDCC system. In recent years, six carriers with relatively poor performance records have either resigned or lost their territories. Three of these carriers (the Blue Shield Plans for South Dakota, Illinois, and Milwaukee) have been on the MDCC system, two (Washington, D.C. Blue Shield and Union Mutual) have used Model B, and one (Delaware Blue Shield) used an in-house system.

Computer usage cost per claim and data entry costs per claim are two statistics which HCFA routinely reports as measures of computer cost directly related to claims processing. The first statistic captures basically "machine time" and "system maintenance" costs while the second

Table 2.6: Mean Performance of Part B Carriers by Type of Computer System, Fiscal Years 1976-1981[a] (standard deviation in parenthesis)

	In-House	Model B	EDS	OSI/Bradford	MDCC	ASDC
Cost per claim ($)	3.70 (1.21)	3.50 (.75)	3.35 (.70)	3.03 (.50)	4.41 (.63)	2.90 (.91)
Computer usage cost per claim ($)	.53 (.22)	.49 (.17)	.71 (.40)	.52 (.26)	.83 (.09)	.40 (.19)
Data entry cost per claim ($)	.17 (.18)	.12 (.18)	.12 (.12)	.08 (.07)	.23 (.12)	.18 (.04)
Claims per person year	7,460 (2387)	7,256 (1739)	9,717 (3018)	10,390 (1597)	6,751 (1118)	8,960 (2537)
Duplicate amount per benefit payment	.10 (.04)	.08 (.03	.08 (.02)	.08 (.03)	.10 (.03)	.04 (.02)
Duplicates per claim	.05 (.02)	.04 (.01)	.04 (.01)	.04 (.01)	.05 (.01)	.04 (.06)
Mean processing time	13.5 (4.0)	12.2 (4.8)	13.7 (4.4)	13.0 (2.6)	11.8 (3.0)	11.1 (4.1)
Payment deductible error rate	2.84 (2.08)	2.17 (1.55)	2.74 (.142)	2.18 (.87)	2.06 (.63)	1.6 (.85)
Total carrier years	59	156	82	26	12	16

[a] All means are weighted by claims processed, all dollars are in 1981 constant dollars.

measures keypunch related costs. These two statistics are roughly correlated with a carrier's overall cost per claim as previously discussed, but internal cost allocation formulas or subcontracting arrangements prevent a perfect correspondence.

Claims processed per person year (CPPY) is a measure of labor productivity which HCFA routinely reports. The important contribution of a computer system to labor productivity is illustrated by the fact that the carriers on the OSI/Bradford system with the second lowest costs per claim also have the highest labor productivity (10,390 CPPY). High cost carriers using the MDCC system also have the lowest labor productivity (6,751 CPPY). Again, there is only an imperfect correlation of cost per claim with labor productivity. The ASDC carriers, for example, have the lowest cost per claim but they rank third in labor productivity.

One job of a computer system is to prevent payment of duplicate claims. Two measures of carrier efficiency in this regard are the ratios of (1) dollar amount of detected duplicate charges divided by benefit payments, and (2) number of detected duplicate charges divided by claims processed. Both ratio measures detected duplicates relative to all claims, the first in dollar terms and the second in terms of claim counts.

As shown in Table 2.6, carriers tend to be quite similar in their performance for duplicate detection in spite of their use of different computer systems.[1] In terms of dollars, the ratio of detected duplicates to benefits paid is between 8 percent and 10 percent for most carriers. The sole exception is carriers on the ASDC system which appears to catch only half as many duplicates in terms of dollar volume. Since all the carriers have similar ratios (.04 or .05) for the number of duplicates detected relative to claims processed, one might suspect that the ASDC system is comparatively inefficient at screening for duplicates on claims in high dollar amounts.[1]

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[1] The ability to detect problems involving expensive claims does not depend solely on the sophistication of computer software. In the Illinois fixed price experiment, for example, EDSF sorts expensive claims in the mailroom and routes them for special handling.

Computer systems can increase their accuracy in detecting potential duplicates by comparing more closely a given claim with other claims that have been submitted by the same beneficiary or by the same provider. Duplicate detection also increases when more items of information are compared between claims. Since large amounts of computer memory and computer time may be needed to conduct matches for duplicates, there are limits on how much duplicate detection a system can be designed to do for given levels of cost and processing speed.

Table 2.6 also lists the mean processing time and payment deductible error rates for the carriers. Mean processing time is the average number of days that it takes for a carrier to process a claim. The table shows that mean times have ranged between 11.1 days for ASDC carriers to 13.7 days for EDS carriers. Although its practical importance to program participants is arguable, this is a statistically significant difference. It is interesting to note that Model B carriers have achieved both the fastest mean processing time (4.45 days in 1981) and the slowest time (45.9 days in 1976) on record. Among the three most frequently used systems, mean times are within a day of each other (13.5 for in-house, 12.2 for Model B, and 13.7 for EDS).

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[1] A recent study by GAO (1983) notes related weaknesses in the ASDC system for Rhode Island.

During our case study visit, we were told by various carriers that it is technically possible to process claims perhaps twice as fast as the current average time. Faster processing, however, would entail higher labor costs in terms of overtime to meet peak loads. At present, carriers are directed by HCFA to avoid overtime expenses and to allow some slow downs in processing when peak loads occur. The close performance of carriers with different systems in terms of mean processing time, therefore, is more likely to illustrate an economic choice by HCFA rather than the maximum capabilities of the systems.

Another measure of carrier performance is the payment deductible error rate. This measures the percentage of claims in a statistical sample which were found to have a payment related error. The table shows again that carriers with different computer systems have on the average rather similar levels of performance. The carriers with the ASDC system show the lowest mean level of this error rate (1.6 percent) while Model B carriers have the highest rates (2.84 percent). These differences are statistically significant although, again, the values involved are close enough so that the practical impact of these differences on service to beneficiaries and providers is debatable.

This section concludes our review of historical trends in carrier performance. Our review has found that the Part B program has improved over the last decade in terms of administrative cost and levels of carrier performance. We have also reviewed some previous studies that have looked at how carrier costs are influenced by carrier size, prevailing input prices, computer systems, and Blue Shield or commercial insurance management.

In the following section, we present an econometric analysis of carrier costs and benefit payments. The analysis will consider the effects of the separate factors we have just discussed and also consider how the experimental fixed price contracts have affected carrier performance.

2.7 Model of Carrier Costs and Benefit Payments

In this section we will describe our basic method for determining the effect of fixed price contracts on carrier performance. Our analysis focuses upon the administrative cost of Medicare Part B claims processing and its impact upon the level of benefits paid by a carrier. Our analysis also considers how other factors--input prices, claims volume, Blue Shield or commercial organization, computer systems, etc.--affect claims processing costs and benefit payment levels. Subsequent sections will describe refinements of the analysis.

At a theoretical level, the carrier is assumed to minimize a cost function where total cost (C) is a function of the firm's product mix ($X_1, X_2, \ldots X_n$) and a vector of input prices ($P_1, P_2, \ldots P_m$). The firm's products are endogenous variables whose mix is governed by the cost minimization process. Input prices are exogenous since the firm is considered to be a price taker in a large market. Other uncontrollable factors ($Z_1, Z_2, \ldots Z_k$) which may affect the firms efficiency may also affect costs. The firm's problem is thus to minimize the function:

$$C = f(X_1, X_2 \ldots X_n, P_1, P_2 \ldots P_m, Z_1, Z_2 \ldots Z_k)$$

In applying this theory to Part B carriers, we considered key features of the production process such as processing speed, error rates, and the development rate to be endogenous "products" whose mix is governed by the process of cost minimization. Features of the carrier which were treated as exogenous ("other factors") were its form of organization (Blue or commercial) and its claim volume. In many industrial settings, it might seem odd to treat output volume as exogenous. However, Part B carriers have essentially no control over the number of claims that will be submitted to them since their geographic territories are defined by HCFA.[1] They can only make a production decision in terms of attributes of their product such as the speed of processing, error rates, etc.

Application of this theoretical approach required some compromises caused by either weak data or ambiguities about which factors facing a carrier are really uncontrollable. For example, our model below includes variables for computer prices as well as dummy variables which denote the carrier's type of computer system. Strictly speaking, the type of computer system is a matter of choice by the carrier (i.e., an endogenous variable) and this choice would be formally modeled in a system of equations. Data limitations, however, prevented this more elegant modeling.

Another issue is whether a carrier can affect the assignment rate in its area. We have treated the assignment rate as an exogenous "other factor" on the grounds that basic features of the Medicare program (e.g., its level of payment) are most likely to determine assignment. It is conceivable, however, that the speed and accuracy of a carrier's own service may have some independent affect on assignment behavior. As we note below, some preliminary modeling of assignment behavior showed little relation of the assignment rate to carrier performance.

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[1] Carriers may have some ability to increase their claim count by encouraging providers and beneficiaries to submit claims more rapidly so that the carrier processes a simpler claim with few line items. Available data did not allow us to explore fully the importance of this issue on cost. However, we did find that the number of line items per claim has been very slowly falling for most carriers and that the number of line items per claim is quite stable from year to year for individual carriers. Carriers differ in their views about the importance of line items per claim as a factor influencing their costs.

Our basic approach has been to estimate a two equation model of carrier performance where one equation describes the carrier's performance in terms of cost per claim and the other in terms of benefit payments per enrollee. The equations can be represented as the following.

(1) Cost per $\text{claim}_{ij} = f_{ij}$ (type of contract, carrier size, input prices, processing speed, error rate, development rate, assignment rate, Blue or commercial organization, computer system)

(2) Benefits per $\text{enrollee}_{ij} = g_{ij}$ (fixed price, cost per claim, medical utilization)

Equation (1) states that cost per claim (CPC) is a function of the presence or absence of a fixed price contract as well as carrier characteristics. Carrier characteristics include the volume of claims processed, mean processing time, error rates, the assignment rate, type of computer system, locally prevailing wages and input prices. The theoretical basis for equation (1) is the concept just discussed that a firm incurs costs from producing a mix of products by using various combinations of inputs.[1] Some of the more qualitative aspects of Medicare claims processing are viewed as separate "products" which contribute to the overall cost of the carrier's operation. Specifically, we consider processing speed, the payment deductible error rate, and the development rate (percent of submitted claims for which additional information is sought before final processing) to be qualitative "products" apart from the volume of claims itself.

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[1] In the theoretical literature, a firm's total cost function is considered to be derivable from its production function. The production function is an equation which describes a technical relation between the amount of inputs (e.g., labor, capital) and the corresponding output (e.g., claims processed, error rates). Our analysis of costs is based upon these underlying theoretical notions. In preliminary analyses, we estimated total cost functions in both the Cobb Douglass and the Translog forms. Results of these analyses were disappointing due, apparently, to a high degree of multicollinearity caused by cross product terms. The fact that most of the carriers in our sample are reimbursed for their costs also caused a violation of a basic theoretical assumption that firms are price takers in the marketplace. Our present approach avoids some of these problems by estimating a simpler form of the cost equation. See Baumol, Panzar, and Willig (1982) for a discussion of the merits of estimating average cost functions in lieu of the translog.

Equation (2) states that benefits paid per enrollee (BENROL) are a function of fixed price contracts, a carrier's cost per claim, and other factors which might affect medical utilization such as population per square mile and physicians per capita. The equation includes the fixed price dummy variables to see if fixed price carriers pay on the average either higher or lower benefits per enrollee than other carriers. The equation includes cost per claim to see if carriers who devote more resources to claims processing do a different job in terms of benefit payments.

In devising this two equation model, we decided not to treat benefit payments as another type of product that is produced by the carrier. This approach led to the exclusion of benefit payments from the cost equation. This reflects a basic feature of the Medicare program wherein the carrier's benefit payments do not offset its own operating budget. However, we did include carrier costs in the benefit equation itself on the grounds that the total resources which a carrier employs in its operations may affect its ability to monitor benefit payments.

We should note that it is not necessarily desirable that either fixed price contracts or the level of cost per claim have a detectable effect on benefit payments. If fixed price carriers pay substantially more benefits than other carriers, this might indicate poor utilization review or poor duplicate charge detection. Conversely, if fixed price carriers pay fewer benefits, this might mean that systematic underpayment of legitimate benefits is occurring. Similar remarks apply to cost per claim. If carriers with high cost levels achieve lower levels of benefit payments, this finding would support the argument that the high cost carriers are doing a more thorough job of utilization review. However, levels of benefit payments are only a first indicator of potential overpayment or underpayment.

2.7.1 Method of Estimation

Our principal method for estimating the cost and benefit payments equations is a type of multivariate regression analysis known as the fixed effects method (or the covariance model technique). The fixed effects method estimates a regression equation where there is a separate constant term (a_i) for each carrier. The fixed effects model is written:

$$Y_{it} = a_1 + a_2 + a_3 + \dots a_m + BX_{it} + e_{it}$$

where Y is the dependent variable, X is a vector of independent variables, and e is a random error term. Subscripts denote the i^{th} carrier in the t^{th} year where there are a total of M carriers and T years.

The fixed effects method assumes that each carrier has some unique feature (e.g., managerial efficiency, regional costs of doing business, etc.) which distinguish it from all other carriers. This is the notion of a separate constant term for each carrier.[1] Otherwise, carriers are alike in the way that they respond to outside factors (e.g., wages and input prices) measured by the X vector and they are alike in encountering certain random shocks (e.g., higher energy prices) which interfere with their operations. In short, the fixed effects method assumes that some carriers are consistently better than others (as shown by differences in the values of their intercepts), but all have about the same luck in encountering unexpected situations which help or hinder their operations.

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[1] In our application of the fixed effects method, we estimated the constant term by using a separate dummy variable for all but two of the carriers. (One excluded carrier was captured in the intercept of the regression; the other is captured in the BLUE dummy; this approach prevents a linear combination of dummies in the $X'X$ matrix.) A review of alternate estimation methods is found in Hausman and Taylor (1981). A discussion of the need to exclude linear combinations of dummies is found in Johnston (1972).

To test the robustness of our results, we also estimated the cost and benefit equations using another technique known as the Fuller and Battese random effects method. This method estimates the model:

$$Y_{it} = a + BX_{it} + e_{it}$$

where

$$e_{it} = U_i + U_t + W_{it}$$

Here the random error term e_{it} is decomposed into three parts. U_i is a random error specifically related to a particular firm, V_t is random error specific to a particular year, and W_{it} is any remaining random error.

The Fuller and Battese method assumes that firms are not distinguished by unique features of their own (there are no separate constant terms for each firm). This approach puts little emphasis on the notion that firms differ in terms of "managerial efficiency" and emphasizes instead the similarity of Medicare carriers in processing a standard product (a claim) while using very similar techniques.

Results with the two methods are generally in agreement concerning the effects of fixed price contracts. Throughout this chapter we will present results with both methods and explain any differences where they occur.

2.7.2 Method of Measuring the Fixed Price Effect

Our approach for measuring the effect of a fixed price contract is to estimate models where there are separate dummy variables to control for baseline features of the fixed price territories (relative to others) and for the presence or absence of a fixed price experiment in the territory in a specific year. The model is specified in a form such as the following:

$$Y = a_0 + a_1\mathrm{CNAT} + a_2\mathrm{HCSCT} + a_3\mathrm{BUFF} + a_4\mathrm{ROCH} + a_5\mathrm{UTICA} +$$
$$a_6\mathrm{ME} + a_7\mathrm{ILLFP} + a_8\mathrm{UNYFP} + a_9\mathrm{MEFP} + \mathrm{BX} + \mathrm{error}$$

Here, Y is the dependent variable and X is a vector of continuous variables. The dummy variables, CNAT, HCSCT, BUFF, ROCH, UTICA, and ME as defined below represent the effects of the carriers which service the territories involved in the fixed price experiment. The dummy variables ILLFP, UNYFP, and MEFP represent the effects of carriers which held fixed price contracts during the periods when they were respectively in effect in Illinois, upstate New York, and Maine. Our use of two dummy variables--one for carriers who served an experimental territory, the other for the period of the experiment itself--allows us to capture the before and after effects of the fixed price experiments.

2.7.3 Method of Measuring Economies of Scale

In estimating our model, we have checked to see how the volume of claims affects carrier costs. We did this test by experimenting with several different functional forms of the equations to see which form does the best job of explaining variation in the data.[1] The functional form of an equation is the manner in which variables are supposed to interact with each other. In this chapter, we report results for cost functions where the claims volume of the carrier is treated as having either a quadratic or an inverse relation to cost per claim. The quadratic equation (e.g., $y=a+bx+cx^2$) was used to see if cost per claim initially falls and then rises (if $b<0$ and $c>0$) for carriers with increases in claims volume. That is, we wished to see if cost per claim was related to volume with a U-shaped curve such as shown in Figure 2.1. The downward bend of the left hand side of a U-shaped curve denotes that economies of scale initially exist so that costs per claim fall as a carrier's claims volume increases from the very low to the moderate range of volume. Furthermore, the upward bend of the right hand side of the U-shaped curve denotes that diseconomies of scale exist so that costs per claim rise as a carrier's claims volume increases from moderate to very large volume.

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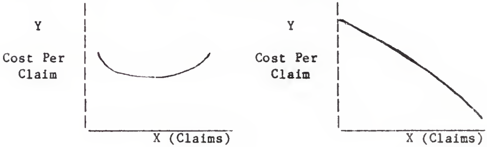
[1] We actually estimated cost equations that were linear ($Y=a+bx$), quadratic ($y=a+bx+bx^2$), semi-log ($\log y=a+bx$), double log ($\log y = a+b\log x$), inverse ($y=a+b1/x$), and inverse log ($y=a+b1/\log x$) in form. If economies of scale are present, the coefficient b will be negative for the linear, semi-log, double log, and quadratic forms and positive for the inverse and inverse log forms. The semi-log, double log, inverse, and inverse log forms also allow for the possibility that costs may decline at an increasing rate. In our experiments, we found that the linear specification gave the worst fit of the data (R^2s around .6) and the inverse function gave the best fit (R^2 around .75). The other cost equation forms had fits in between these two extremes.

Figure 2.1: Possible Shapes of the Cost Per Claim Equation



Quadratic Equation

$y = a + bx + cx^2$

Inverse Equation

$y = a + b/x$

In contrast, the inverse equation ($y=a+b/x$) assumes that cost per claim will fall at an ever faster rate (if $b>0$), thus indicating that only economies of scale are present over the range of the observed data.

If we were to find that the quadratic form does the best job of fitting the data, this would suggest that there is an optimal size for carriers which would assure the lowest possible cost per claim. A policy of eliminating both very small and very large carriers via consolidations or territory splitting would be consistent with this finding. In contrast, if we were to find that the inverse function offers the best fit, this would suggest that there is no foreseeable limit to optimal carrier size. This finding would be consistent with a policy of carrier consolidation designed to merge several small carriers into one new large carrier. Of course, a finding that there are no economies of scale (that is, the finding of previous studies) would be consistent with maintaining the status quo where carriers exist in a wide range of sizes.

We must emphasize that our findings properly apply only to the observed range of the data. That is, we will not be able to tell with certainty if cost per claim would be very high (a hypothetical point far out on a projected quadratic equation) or very low (a hypothetical point far out on a projected inverse equation) if HCFA were to create a new consolidated carrier very much larger than current carriers.

2.7.4 Method of Measuring Cost and Benefit Payments

The dependent variable in the various versions of the equation is the carrier's total administrative cost per processed claim. This is measured in two alternate ways. In equations 1 and 2, cost per claim is defined in terms of the cost incurred by the carrier (CPC) in processing claims; in equations 3 and 4, cost per claim is defined in terms of the cost incurred by the government (CPC*) for the carrier's claims processing services. These two measures of cost are identical for cost reimbursed carriers but they differ substantially for fixed price carriers. In each of the experiments to date, fixed price carriers have reported incurred costs which have been higher than the payment allowed by their fixed price contract.

Conceptually, CPC* is a better measure of cost if one is interested in determining if fixed price contracts were able to save money for the government, at least in the short run, against the alternative of claims processing on a cost reimbursed basis. On the other hand, CPC is the better measure of the total economic resources used to process a claims assuming, of course, that these reported costs were correctly reported by the carrier.

We should note that measures of economic resources used by a fixed price carrier are measured by Medicare's standard accounting rules. This measure of cost may not reflect the internal cost of economic resources to the carrier. Under the fixed price competition, bidders implicitly choose to factor certain corporate overhead items out of their price to enable them to submit as low a bid as possible. In effect, the bidders choose to bid a price that reflects more closely their internal marginal cost in claims processing rather than their average total cost (inclusive of corporate overhead) as measured by Medicare's accounting rules. The reported costs of fixed price carriers are thus an artificial exercise in applying Medicare's accounting rules for cost reimbursed carriers. This exercise probably bears only a tenuous relation to the firm's internal rules for allocating economic resources.

The second equation in our model uses benefit payments per enrollee (BENROL) as its dependent variable. This variable is measured in the same way for both fixed price and cost reimbursed carriers since there is no difference in the benefit payment function performed by the carrier.

2.7.5 Method of Measuring Carrier Performance

In the Medicare program it is important not only that claims be paid, but also that they be paid on time and without error. In our analysis, we have consequently tried to take account of how the costs of a carrier may be affected by its speed and accuracy in processing claims.

As a measure of the speed of payment, we have used the carrier's mean processing time (MPROCTA). This is essentially the average number of days elapsed between the receipt of a claim and its final payment. It is typical for a Part B carrier to process about 90 percent of its claims within a few days of receipt. A small percentage of claims, however, require some extra work because they have garbled, incomplete, or inconsistent information. Carriers attempt to expedite payment by "developing" a claim, i.e., writing or telephoning the sender for additional information. Carriers have some flexibility in determining when and how they will develop a claim. Furthermore, the sophistication of prepayment edits in a carrier's computer system can affect the number of claims which a carrier selects for development. In our analysis we have, consequently, used the development rate (DEVLRA)--the annual percentage of claims which undergo development--as a measure of a carrier's qualitative effort of claims processing.

The accuracy of a carrier's work is regularly monitored by HCFA by selecting a sample of processed claims and checking them for errors. A carrier's performance in accurately determining (1) the beneficiary's satisfaction of the deductible, and (2) the correct level of the reasonable customary and prevailing charge is measured by HCFA with a statistic known as the payment deductible error rate (DEDERR). This rate is also used by HCFA as one of the performance indicators for the assessment of liquidated damages against fixed price contractors. We have accordingly included DEDERR in our model to take account of a carrier's accuracy in determining the deductible and making payments.

2.7.6 Measuring Other Factors

Earlier in this chapter we related the performance of carriers to the various computer systems which they use. In the following analysis, we controlled for the type of computer system by defining separate dummy variables for carriers who used an EDS based system (EDS), an in-house system (OWNSYS), or one of the other (OTHER) proprietary systems (ASDC, MDCC, OSI). Carriers who use a system based on the Model B system were treated as the standard against which the other systems were measured. The effect of the Model B system is captured in the intercept term of the regression equation.

Our regression equations include several variables which measure wages and input prices. These are viewed as "uncontrollable" factors which affect the cost of operating in a particular area. The prevailing levels of local wages and salaries are measured with two variables, one for clerical wages, the other for higher level white collar workers. Clerical wages (LOMSAL) are measured using the values reported by the Life Office Management Association for regional average clerical wage in the insurance industry. White collar wages are measured by using the average regional salary of senior systems analysts (SRSYANL) as a proxy for all white collar workers. An annual survey by Datamation is the source of this variable.

We mentioned earlier that changes in computer costs are widely acknowledged to have played a major role in reducing the cost of claims processing. We have measured computer costs (BGFRM) in terms of the cost of executing a standard set of instructions on a vintage mainframe computer. BGFRM is a nationally prevailing cost without any regional variation.

We have also included in our cost equation a variable (RENT) for the regional rental cost of office space. The variable was derived from the annual survey of the Building Owners and Managers Association.

In summary, the cost and benefit equations have used the following variables.

Dependent Variables

BENROL	ratio of Part B benefits paid to enrollees residing in the carrier's territory

CPC	cost per claim incurred by the carrier defined as reported administrative cost divided by claims processed
CPC*	cost per claim incurred by the government defined the same as CPC except that the fixed price per claim is substituted for CPC for carriers on fixed price contracts

Fixed Price Variables

CNAT	dummy variable equals one for the carrier serving the Illinois territory of Continental Insurance Co. (1976-1979) and EDSF (1979-1981), zero otherwise
HCSC	dummy variable equals one for the carrier serving the Illinois territory of Health Care Services Corporation (1976-1979) and EDSF (1979-1981), zero otherwise
BUFF	dummy variable equals one for the carrier serving upstate New York region of Buffalo, namely, Blue Shield of Western New York (BSWNY) (1976-1981), zero otherwise
ROCHNY	dummy variable equals one for the carrier serving upstate New York region of Rochester, Genesee Valley Medical Care (1976-1979), BSWNY (1979-1981), zero otherwise
UTICA	dummy variable equals one for the carrier serving upstate New York region of Utica, Metropolitan (1976-1979), BSWNY (1979-1981), zero otherwise
UNY	dummy variable equals one for the combined upstate New York region (Buffalo, Rochester, Utica), zero otherwise
ILL	dummy variable equals one for the combined Illinois region (HCSC and CNAT), zero otherwise
ME	dummy variable equals one for the carrier serving the state of Maine, Union Mutual (1976-1978), Blue Shield of Massachusetts (1978-1981), zero otherwise
ILLFP	dummy variable equals one for years where the Illinois territory operated under a fixed price contract (1979-1981), zero otherwise
UNYFP	dummy variable equals one for years where the upstate New York territory operated under a fixed price contract (1979-1981), zero otherwise
MEFP	dummy variable equals one for years where the state of Maine operated under a fixed price contract (1978-1981), zero otherwise

Carrier Characteristics

ASSIGNA	assignment rate
BLUE	dummy variable equal to one for Blue Shield Plans, zero otherwise
DEDERR	payment deductible error rate
CLMSPRT	claims processed per year
CLMS2	CLMSPRT squared
LEXPER	experience measured by the logarithm of the cumulative number of months for which a carrier has processed claims in its current territory
MPROCTA	mean processing time for a claim
DEVLRA	development rate

Carrier Computer System

EDS	dummy variable equals one if a carrier has an EDS based computer system (either subcontracted or supported in-house)
MODEL B	dummy variable equals one if carrier uses a Model B based computer system
OTHER	dummy variable equals one for carriers with computer systems other than in-house, Model B, or EDS
OWNSYS	dummy variable equals one if carrier uses an in-house computer system

Regional Wages and Input Prices

BGFRM	national mainframe computer costs for executing a fixed number of computations
RENT	rental cost for commercial office space (mils per square foot) as reported by the Building Owners and Managers Association
LOMASAL	regional average annual clerical wages as reported by the Life Office Management Association
SRSYANL	regional average annual salary for senior system analyst

Regional Characteristics

POPSQMI	population per square mile
MDPOP	physician per enrollee

2.8 Results

Table 2.7 reports four versions of the cost equations which have been estimated with the fixed effects method. In each of the equations, the effects of fixed price contracts are captured with the series of fixed price dummy variables (JNYFP, ILLFP, MEFP) and the corresponding variables for the region of the experiment (BUFF, ROCHNY, UTICA, HCSCT, CNAT, ME) as previously discussed. The dependent variable in equations 1 and 2 is CPC while in equations 3 and 4 it is CPC*. Equations 1 and 3 are in quadratic form using the number of processed claims (CLMSPRT) and its square (CLMS2) to measure claims volume. Equations 2 and 4, in contrast, use the inverse of claims volume (IVCLM). All of the equations contain continuous variables for the payment deductible error rate (DEDERR), mean processing time (MPROCTA), the development rate (DEVLRA), and the assignment rate (ASSIGNA). A dummy variable denotes carriers that are Blue Shield Plans (BLUE). Dummy variables for the type of computer system signify if the carrier is using an EDS based (EDS), in-house developed (OWNSYS), or other vendor (OTHER). The standard of comparison for computer systems is a Model B based system which is measured by the intercept term in the regression. All of the equations also control for levels of mainframe computer costs (BGFRM). Three other variables measure regional prices and wages for office space (BOMA), clerical workers (LOMASAL), and senior systems analysts (SRSYANL).

The experience of carriers is measured by the logarithm of the number of months experience (LEXPER) which a carrier has accumulated (since 1976) in serving its current territory. Fixed price carriers were assumed to have zero experience in their new territories.

The equations in Table 2.7 were estimated using the fixed effects method. The method required that a separate dummy variable be included in

Table 2.7: Cost Per Claim--Fixed Effects Method, All Carriers 1976-1981 (absolute value of t statistics in parentheses)

	Dependent Variable			
	CPC (1)	CPC (2)	CPC* (3)	CPC* (4)
Independent Variables	Parameter Estimate	Parameter Estimate	Parameter Estimate	Parameter Estimate
INTERCEPT	-0.33 (0.19)	-1.45 (0.962)	1.36 (0.771)	-0.36 (0.221)
CLMSPRT Claims processed	-2.84-07 (2.09)	--- ---	-4.18-07 (3.01)	--- ---
CLMS2 Claims squared	9.58-15 (1.05)	--- ---	1.761-14 (1.89)	--- ---
IVCLM Claims inverse	--- ---	454308.00 (6.93)	--- ---	457137.6 (6.71)
DEDERR Payment/deductible error rate	-0.0013 (0.06)	0.036 (1.90)	-0.0034 (0.158)	0.037 (1.87)
MPROCTA Mean processing time	0.018 (2.38)	0.008 (1.17)	0.018 (2.36)	0.008 (1.15)
ASSIGNA Assignment rate	0.011 (1.29)	0.0018 (0 255)	0.011 (1.31)	0.0017 (0.235)
BLUE Blue Shield dummy	-0.861 (1.71)	0.016 (0.05)	-1.15 (2.23)	0.053 (0.156)
HCSCT Cook County, Illinois dummy	1.10 (3.12)	1.26 (3.81)	1.17 (3.26)	1.34 (3.89)
CNAT Illinois, rest of state dummy	-0.669 (1.30)	0.178 (0.467)	-0.884 (1.68)	0.259 (0.656)
BUFF Buffalo, New York dummy	1.11 (3.21)	0.969 (3.05)	1.03 (2.91)	0.972 (2.94)
ROCHNY Rochester, New York dummy	1.35 (4.16)	0.587 (1.89)	1.23 (3.74)	0.593 (1.84)
ME Maine dummy	-0.695 (1.08)	-0.077 (0.17)	-1.08 (1.65)	-0.060 (0.13)
UTICA Utica, New York dummy	0.560 (0.872)	0.504 (1.12)	-0.882 (1.34)	0.558 (1.19)
MEFP Fixed price, Maine dummy	0.912 (1.27)	0.414 (0.709)	0.101 (0.137)	-0.735 (1.21)
ILLFP Fixed price, Illinois dummy	-0.19 (0.30)	-0.808 (1.45)	-1.76 (2.71)	-2.59 (4.49)
UNYFP Upstate New York fixed price dummy	-1.95 (2.01)	-2.16 (3.30)	-1.55 (1.56)	-2.46 (3.62)
EDS EDS computer system	-0.43 (2.25)	-0.48 (2.72)	-0.41 (2.09)	-0.479 (2.62)
OWNSYS In-house computer system	0.135 (0.553)	-0.059 (0.269)	0.185 (0.74)	-0.061 (0.266)
OTHER Other computer system	-0.381 (2.64)	-0.394 (2.93)	-0.385 (2.61)	-0.413 (2.95)
LEXPER Logarithm, months of experience	-0.044 (1.22)	-0.06 (2.17)	-0.21 (5.79)	-0.251 (8.35)
LOMASAL LOMA average weekly salary	0.021 (2.24)	0.011 (1.22)	0.019 (1.98)	0.009 (1.01)
SRSYANL Sr. systems analyst salary for region	1.33-05 (0.643)	5.34-05 (2.73)	-1.64-05 (0.777)	5.38-05 (2.65)
BGFRM Cents per instruction 10,000 (large)	4.53-03 (9.43)	4.02-03 (8.85)	3.20-03 (6.51)	2.78-03 (5.91)
RENT RENT index	1.89-05 (0.598)	6.86-06 (0.232)	1.35-05 (0.419)	-1.21-06 ((0.039)
DEVLRA Development rate	0.048 (3.71)	0.050 (4.35)	0.051 (3.85)	0.056 (4.66)
$\bar{R}^2$ statistic	.81	.83	.81	.83
Number of observations	334	334	334	334
F statistic	20.37	24.07	20.88	23.90

Table 2.7: Continued

Independent Variables	Dependent Variable CPC* (5) Parameter Estimate	 CPC* (6) Parameter Estimate
INTERCEPT	1.80 (0.79)	-3.68 (-0.90)
CLMSPRT Claims processed	— —	— —
CLMS2 Claims squared	— —	— —
IVCLM Claims inverse	720165.8 (5.50)	445184.8 (7.54)
DEDERR Payment/deductible error rate	0.07 (2.65)	-0.14 (-3.24)
MPROCTA Mean processing time	0.01 (1.40)	0.02 (1.78)
ASSIGNA Assignment rate	-0.02 (-1.95)	-0.02 (-2.80)
BLUE Blue Shield dummy	— —	— —
HCSCT Cook County, Illinois dummy	1.39 (2.32)	— —
CNAT Illinois, rest of state dummy	— —	— —
BUFF Buffalo, New York dummy	0.34 (0.68)	— —
ROCHNY Rochester, New York dummy	-0.38 (-0.69)	— —
UTICA Utica, New York dummy	— —	— —
ME Maine dummy	— —	— —
MEFP Fixed price, Maine dummy	-1.05 (-1.92)	— —
ILLFP Fixed price, Illinois dummy	— —	— —
UNYFP Upstate New York fixed price dummy	-1.02 (-2.46)	— —
EDS EDS computer system	0.22 (0.69)	-0.22 (-0.99)
OWNSYS In-house computer system	1.11 (3.06)	0.09 (0.30)
OTHER Other computer system	-0.007 (-0.02)	-0.69 (-0.54)
LEXPER Logarithm, months of experience	-0.18 (-5.03)	0.28 (0.36)
LOMASAL LOMA average weekly salary	0.001 (0.13)	0.02 (1.56)
SRSYANL Sr. systems analyst salary for region	3.12-05 (1.18)	0.0001 (4.72)
BGFRM Computer costs (cents per instruction)	2.28-03 (3.57)	0.007 (1.56)
RENT RENT index	1.57-05 (.38)	-5.74-05 (1.65)
DEVLRA Development rate	0.07 (4.66)	0.004 (0.32)
CEXPCLM Admin cost per benefit payment (commercial)	— —	3.98 (2.17)
BOPXCLM Admin cost per benefit payment (Blue Shield)	2.32 (1.56)	— —
$\bar{R}^2$ statistic	.86	.92
Number of observations	183	131
F statistic	25.57	41.29

the regression for each carrier. Since these dummies are of no particular analytical interest, they are not included in the tables.

Alternative estimates of the cost equation using the Fuller and Battese estimation method are presented in Table 2.8. These equations generally agree with the previous estimates in terms of the effects of fixed price contracts, thus adding to our confidence in the results.[1]

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[1] The Fuller and Battese method is not as flexible as the fixed effects method in handling missing values in the data. This created a problem for analyzing carriers who were not in operation during the entire six years of our analysis. We solved this problem by defining some "carrier areas" where more than one carrier may have operated at the same time. Data on individual carriers were weighted (by claims volume) and added to create a composite area carrier where necessary.

In combining territories as the unit of analysis, we undertook the following data adjustments:

- Illinois. Prior to 1979, the state was served by two carriers, HCSC and CNA. Data for these two carriers were combined (using weights based on claims volume) to create a single territory equal in area to the territory now served by EDSF under a fixed price contract.
- Upstate New York. Prior to 1979, carriers located in Buffalo, Rochester, and Utica each served separate regions. Data for these carriers were combined to yield a single territory conforming to the region now served by a single fixed price carrier.
- Maine. The state of Maine was served by Union Mutual as the carrier through 1977. Thereafter, it was served by the fixed price carrier. In this case, data for the individual carriers are identical with data for the territory.
- North and South Dakota. Prior to 1981, North and South Dakota were served by separate carriers. In 1981, the carrier for North Dakota took over as carrier for South Dakota. For our analysis, we defined a single region (the Dakotas) as the unit of analysis. Data for the North and South Dakota carriers were thus combined for 1976 through 1980, to conform to the territory served by a single carrier in 1981.
- Wisconsin. Prior to 1980, two carriers served the state of Wisconsin. One carrier was responsible for the area around Milwaukee while the other served the rest of the state. In 1980, the Milwaukee territory was absorbed into the rest of the state. In our analysis, we have combined data on Milwaukee and the rest of the state to permit a consistent analysis at the state level in all years.
- Delaware and Washington, D.C. Carriers serving these territories ceased operations in 1981. Blue Shield of Pennsylvania absorbed these territories into its operations. Our data base treats the Pennsylvania, Delaware, and DC areas as separate territories because all three carriers were operational during the period of our analysis.

Table 2.8: Cost Per Claim--Fuller and Battese Method, All Carriers 1976-1981 (absolute value of t statistics in parenthese

Independent Variables	Dependent Variable			
	CPC (1)	CPC (2)	CPC* (3)	CPC* (4)
INTERCEPT	2.70 (2.61)	1.29 (1.30)	2.51 (2.25)	1.08 (1.00)
CLMSPRT Claims processed (000,000)	-0.13 (2.06)		-0.15 (2.16)	
CLMS2 Claims squared	0.01 1.46		0.01 (1.59)	
IVCLM Claims inverse		0.22 (6.63)		0.23 (6.37)
DEDERR Payment/deductible error rate	-3.53-03 (0.20)	1.18-02 (0.73)	-1.18-02 (0.66)	3.50-03 (0.20)
MPROCTA Mean processing time	0.02 (3.35)	0.02 (2.71)	0.02 (2.91)	0.01 (2.24)
ASSIGNA Assignment rate	-0.01 (3.11)	-0.01 (3.05)	-0.01 (3.29)	-0.01 (3.30)
BLUE Blue Cross dummy	0.05 0.45	0.12 (1.00)	0.13 (0.95)	0.21 (1.55)
UNY Upstate New York	0.28 (0.57)	0.42 (0.91)	-0.06 (0.12)	0.06 (0.12)
UNYFP Upstate New York fixed price dummy	-0.935 (2.96)	-0.93 (3.14)	-0.61 (1.84)	-0.59 (1.91)
ME Maine dummy	0.36 (0.77)	0.36 (0.79)	0.49 (0.95)	0.51 (1.00)
MEFP Fixed price, Maine dummy	-0.021 (0.0588)	0.02 (0.07)	-0.73 (1.98)	-0.69 (2.02)
ILL Illinois state dummy	0.71 (1.55)	0.68 (1.54)	0.58 (1.14)	0.53 (1.09)
ILLFP Fixed price, Illinois dummy	-0.479 (1.38)	-0.49 (1.49)	-1.50 (4.08)	-1.51 (4.35)
EDS EDS computer system	-0.14 (1.15)	-0.17 (1.50)	-0.09 (0.67)	-0.12 (0.98)
OWNSYS In-house computer system	0.64 (4.53)	0.55 (3.99)	0.84 (5.44)	0.76 (5.06)
OTHER Other computer system	-0.23 (2.49)	-0.20 (2.31)	-0.12 (1.18)	-0.09 (0.94)
LEXPER Logarithm, months of experience	-0.02 (0.98)	-0.02 (1.13)	-0.07 (2.88)	-0.07 (3.20)
LOMASAL LOMA average weekly salary	0.01 (1.01)	0.01 (1.43)	0.01 (1.27)	9.47-03 (1.61)
SRSYANL Sr. systems analyst salary for region (000)	-0.03 (2.15)	-5.70-03 (0.42)	-0.03 (1.74)	-1.82-04 (0.01)
BGFRM Cents per instruction 10,000 (large)	5.56-03 (7.79)	5.33-03 (8.88)	5.53-03 (7.34)	5.29-03 (8.33)
RENT RENT index	3.24-05 (1.25)	2.68-05 (1.11)	3.55-05 (1.30)	2.96-05 (1.15)
DEVLRA Development rate	0.02 (2.57)	0.02 (2.72)	0.02 (1.88)	0.02 (1.93)
Number of Observations (52 carriers X 6 years)	312	312	312	312
Variance component for cross section	0.134	0.119	0.153	0.140
Variance component for time series	0.024	0.015	0.024	0.015
Variance component for error	0.105	0.088	0.105	0.087
Transformed regression M.S.E.	0.116	0.102	0.127	0.112

Our principal interest in examining the cost equation is to see if carriers with fixed price contracts achieve lower cost per claim than do comparable carriers. The negative coefficients on the fixed price dummy variables (MEFP, ILLFP, UNYFP) show that fixed price carriers do in fact achieve lower costs. Lower costs occur both in terms of a reduction in the fully allocated cost (CPC) reported by the carrier (equations 1 and 2), and in terms of the cost (CPC*) paid by the government (equations 3 and 4).

In equations 1 and 2, only the coefficient for the upstate New York experiment is statistically significant. This indicates that the upstate New York carrier achieved fundamental economies in its operations (mainly by moving its operations from Buffalo to Binghamton). The Illinois and Maine experiments show no statistically significant reduction in the level of reported cost. This may indicate either that the carriers incurred a real loss on their contracts or that their internal marginal costs were lower than the fully allocated costs reported under Medicare accounting rules.[1]

In equations 3 and 4 in Table 2.7, the fixed price carriers for upstate New York and Illinois show a statistically significant reduction in the cost incurred by the government (CPC*) under the experiments. For the Maine fixed price carrier there is also a reduction in cost to the government (in equation 4), but the reduction is not statistically significant. This indicates that under the pressure of competition, two of the carriers offered the government a lower price for claims processing services than they would have offered under a traditional cost reimbursed contract.

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[1] Our case studies indicate that EDSF may have incurred a real loss under its fixed price contract in Illinois. Blue Shield of Massachusetts has indicated that its Maine I contract broke even in terms of operating costs, but it failed to earn enough to pay for the corporate overhead that is normally allocated to a Medicare cost reimbursed contract.

These findings with the fixed effects method are generally confirmed by the alternative Fuller and Battese method. Table 2.8 presents the Fuller and Battese calculations. We should note, however, that the latter method also finds that reductions in CPC* for Maine are statistically significant.

For the upstate New York experiment, the fixed effects point estimates in Table 2.7 (using equation 2, which has the better overall fit) of the reduction in reported cost due to the fixed price contracts range is \$2.16 per claim. If we allow for a one standard deviation interval around the estimate, the cost reductions for upstate New York range from \$1.51 to \$2.81 per claim. This is the only experiment where the reduction in reported cost is statistically significant.

For each of the fixed price experiments, there is evidence that the government incurred lower cost per claim (CPC*) than it would have incurred under a similar cost reimbursed contract. This is demonstrated by the negative coefficients in equations 3 and 4 of Table 2.7 for MEFP, ILLFP, and UNYFP. The upstate New York experiment achieved the greatest reduction in cost per claim. The fixed effect point estimate of this reduction (again using the better fit of equation 4) is \$2.46 per claim; a one standard deviation range about this point would allow the reduction to be \$1.78 to \$3.14 per claim. For the Illinois experiment, the regressions state that the government achieved cost per claim reductions of \$2.59, or \$2.01 to \$3.17 if we allow for a one standard deviation interval. These results for Illinois and New York are statistically significant. In the Maine experiment, the point estimate is \$.73 with a one standard deviation interval of \$.13 to \$1.33.

For the Maine experiment, evidence that the government paid a lower cost per claim is somewhat less decisive. In Table 2.7, equation 4, the negative coefficients for the variable MEFP indicate that savings of $.73 per claim were achieved. These savings are not statistically significant. However, the findings for Maine improve when we use the alternative Fuller and Battese method of estimation. When the latter method is used, the Maine experiment achieves statistically significant savings of approximately $2.00 per claim. The ambiguity of results for Maine appears to be due to the fact that while the Maine I contract achieved notable reductions in cost relative to the former carrier, the subsequent Maine II contract achieved reductions which were not noticeably different from national trends in costs.

It is interesting to note that these regression estimates of the reduction in CPC* are not unreasonable. The cost per claim incurred by the government (in 1981 dollars) in each of the three experiment areas is shown in the Table 2.9 (figures for upstate New York and Illinois in the preexperiment years are weighted averages for the carriers serving these territories).

Table 2.9: Cost Per Claim Incurred by Government Before and During Fixed Price Experiments (all figures are in 1981 dollars)

	1976	1977	1978	1979	1980	1981
Upstate New York	$5.00	$4.57	$4.03	$3.36*	$1.88	$1.71
Illinois	4.97	4.59	4.21	4.24*	1.05	1.39
Maine	4.83	4.17	3.72*	2.93	2.64	2.44

*First year of fixed price experiment.

Consequently, it appears that the fixed price experiments were successful in achieving a lower price per claim for the government. It is not so clear, however, that the carriers were able to achieve fundamental economies in terms of fully allocated costs.

2.9 Economies of Scale

Our regression analysis has also explored the issue of whether or not the size of a carrier's claims volume has an important impact on the cost of claims processing. As we discussed in Section 2.5, early statistical analyses of the program have not found any significant relationship between claims volume and processing costs. Our own findings for a more recent period reveal stronger statistical evidence for the importance of claims volume for processing cost.

We have estimated cost equations which include claims volume in either a quadratic form (equations 1 and 3) or an inverse form (equations 2 and 4). Both equations fit the data very well; the inverse form explains around 83 percent of the variation in cost per claim while the quadratic explains about 81 percent of the variation. The inverse form not only fits the data slightly better, it also shows effects by other variables that are more consistent with views expressed by industry and government representatives. As discussed in Section 2.7.3, the inverse functional form assumes that cost per claim falls at an increasing rate with claims volume while the quadratic assumes that cost per claim will fall for a while with volume and then start to rise again due to diseconomies of large scale.

Comparisons of the various equations show a general agreement that cost per claim falls steadily between annual claims volumes of 500 thousand and 8.5 million claims per year.[1] Beyond the latter range, the equations disagree about whether diseconomies of scale begin to appear. In Table 2.7, the fixed effects quadratic equations do not find any diseconomies until a volume of 14 million claims is achieved. This result is statistically significant in only one equation (number 3, Table 2.7).[1] Furthermore, no carrier currently processes this level of claims volume, so the result should be treated cautiously. In contrast, the Fuller and Battese method presents a finding that diseconomies of scale set in beyond a claims value of 8.5 million claims. These results, however, are not statistically significant.

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[1] Optimal size is determined by setting the first derivative of the equation equal to zero. For the quadratic $y = a + bX + cX^2$, the optimal size is given by the formula $X = -b/2c$. In equation 1, Table 2.7, for example, optimal size is (2.84E-07)/2 (9.58E-15) = 14.8 million.

How large are these apparent economies and diseconomies? The most severe estimate of scale economies (from the Fuller and Battese quadratic equation) shows only a few cents difference in cost per claim between claims volumes of 6 to 10 million claims per year with sharper rises in costs on either side of these ranges. Table 2.10 shows how much additional cost per claim is incurred above the optimal cost level at various claims volumes. Estimates in the table are based on the more severe finding of the Fuller and Battese method; fixed effects estimates are smaller.

Table 2.10: Additional Cost Per Claim Due to Departure from Optimal Claims Volume: Quadratic Versus Inverse Estimates

Additional Cost Per Claim	Annual Claims Volume							
	500K	2M	4M	6M	8M	10M	12M	14M
Quadratic Estimate	$.48	$.31	$.15	$.04	$.00	$.02	$.07	$.25
Inverse Estimate	$.44	$.08	$.03	$.01	$.00	-$.01	-$.01	-$.01

What practical policies are compatible with these diverse findings? Both the quadratic and the inverse cost functions agree that important reductions in claims processing cost could be achieved by consolidating those small carriers that process less than 2 million claims per year. It is not so clear, however, that HCFA should immediately proceed with a policy of consolidating medium or large volume carriers to create extra large carriers with volumes above 12 million claims per year. Our most favorable econometric evidence suggests that very large carriers would be only slightly less expensive (about $.01 per claim) than carriers with a volume of 6 million claims, while less favorable evidence suggests that costs might rise appreciably (by about $.25 per claim) at the higher level. Consequently, a prudent policy with regard to carrier volume would be to concentrate efforts on consolidating the very small carriers. Efforts to consolidate larger carriers into very large (regional) carriers should proceed slowly on an experimental basis until more evidence is available on whether economies or diseconomies of scale dominate at these larger sizes.[1]

---

[1] In some cases, it is possible that the point of lowest cost (the bottom of the U-shaped curve) on a quadratic cost curve is only an inflection point rather than a true upward bend. Experiments with a test suggested by Manchester (1976) showed that a true upward bend was present in only some cases.

2.10 Cost Performance of Blues and Commercials

Our econometric results do not offer any clear evidence that either Blue Shield or commercial carriers are more successful at achieving lower cost per claim. Instead, superior cost performance seems to depend largely on the particular circumstance (perhaps the quality of management) at individual carriers.

Evidence for this conclusion is found in the sign and statistical significants of the BLUE dummy (1 equals Blue Shield, 0 equals commercial) in the various regressions. In the Fuller and Battese model, the BLUE variable is never statistically significant. This yields the clear conclusion that Blue Shield carriers as a group are no better or worse than commercials in their cost performance. In the fixed effects model, the results are more subtle. Here the BLUE dummy has a negative sign. This would normally indicate that Blue Shield affiliation leads to lower administrative cost. However, this interpretation is arguable because the coefficient is significant only in the quadratic equations. This unstable pattern of significance suggests that the quadratic form is simply a poor specification. Our suspicion about the BLUE dummy was reinforced when we ran the same regressions in Table 2.7 without the BLUE dummy, for we found that the subsequent addition of this variable contributed very little to the explanatory power of the model. Furthermore, when we ran a stepwise regression (where all variables except BLUE and the fixed effects dummies were forced into the first step), we found that the BLUE variable was one of the last to be selected, it again added little to explanatory power, and its sign was not stable.[1] In short, there seems to be no evidence that Blue Shield plans are any more costly than commercial plans in processing Part B claims.

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[1] We should also note that HCFA's recent consolidations of small carriers serving North and South Dakota, Delaware, and Washington, DC, are consistent with our findings.

Our findings are consistent with Blair and Vogel who reported (p. 131) that statistical evidence that ". . . commercial carriers have lower administrative costs than Blue Shield carriers," was usually not present in their equations.

Our findings are quite different from those of Frech (1976) who found that cost per claim was appreciably higher for Blue Shield carriers.[2]

---

[1] Another puzzling feature of the fixed effects model was that virtually all of the fixed effect dummies for Blue Shield carriers had positive signs while virtually all of the dummies for commercials had negative signs. This pattern is consistent with the hypothesis that commercial carriers achieve lower costs.

[2] Frech actually reports higher administrative costs per benefit payments for "nonprofit" firms (see following footnote), but his footnotes assert that similar results hold for cost per claim and for Blue Shield plans only.

We attribute our different findings to several factors. First, Frech's analysis was based upon data for 1970. This was a period before the Medicare program had moved to weed out inefficient carriers. Tougher administration of the Medicare program since 1976 may have prevented Blue Shield carriers from collecting the "implicit profits" which Frech found to be present in the earlier period.

A second reason for our different findings may be that we included in our analysis several variables that were not used by Frech.[1] These include local wages and input prices and type of computer system. In principle, Frech's findings could be in error because theoretically important variables were missing from his regressions. However, we think it is more likely that improvements in Medicare administrative practices account for the historical pattern that appears from these various analyses. The earliest study by Frech found that Blues were significantly less efficient, the next study by Blair and Vogel found only weak evidence for Blue inefficiency, and our study also finds none. While this progression of results may be due to better data and application of more sophisticated econometric techniques, we are inclined to believe that real improvements in the Medicare program account for this progress.

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[1] Frech estimated three ordinary least squares equations where the dependent variables were respectively, (1) administrative cost per benefit payments (CPAY), (2) average processing time (in days), and (3) the number of errors per dollar processed. Each of the three equations also used the same independent variables; namely, (1) the dollar value of carrier payments as a measure of scale, (2) the size (apparently in dollars) of the average claim, and (3) a dummy variable for nonprofit carriers (NP=1 for Blue Shield plans, Oklahoma SRS, GHI, and "mutual companies," zero otherwise) who were mainly Blue Shield plans. We have reestimated Frech's equations using data for 1976 through 1981; we found that higher administrative costs per dollar of benefit payments (i.e., a positive and significant coefficient on BLUE in an equation with CPAY as the dependent variable) but no significant difference in administrative cost per claims (i.e., no significant coefficient on BLUE with CPC as the dependent variable).

2.10.1 Joint Economies

We will now consider in more detail the issue of why a firm might be willing to engage in nonprofit work for Medicare. As discussed above, nonprofit Medicare work may be attractive to a firm if it gives rise to joint economies. To test for joint economies, we also included in our cost function the ratio of a carrier's administrative cost in private health insurance relative to the total value of private benefits paid. This is a proxy for cost per claim in private insurance. (Direct information on administrative cost per claim processed is not available from the insurance industry.)[1]

Unfortunately, comparable accounting definitions are not used by Blues and commercials in their private lines of business. This led us to develop two separate ratios--one for Blues, the other for commercials--and to estimate the ATC equation separately for the two groups. The variables we used are based upon the Argus Health Chart, a standard industry publication. For Blues, we define the variable BOPXCLM as "total expenses" less "claims expenses" divided by "claims expense." For commercials, we define the variable CEXPCLM as "expense incurred including claims expenses" divided by "claims incurred." (Terms in quotation marks are defined by Argus.) Conceptually, BOPXCLM and CEXPCLM are each the ratio of administrative costs to benefit payments. The ratios differ in their components because the numerators include slightly different allowances for sales expenses. The denominators of the ratios also differ to the extent that the two types of firms offer different types of health insurance coverage.

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[1] A more sophisticated test for the presence of joint economies could be performed if we had data on the claims volume and operating costs of a firm for both its Medicare and other lines of business. Such data would allow us to estimate a joint cost function which embraced all lines of business. Our analysis here is restricted by data availability to consider only the Medicare portion of costs. For a more extensive treatment of this issue, see Hays, Robert D., "Differential Organizational Patterns of Blue Cross-Blue Shield and Commercial Insurers for Competiton in the Market for Group Health Insurance," unpublished doctoral dissertation, Vanderbilt University, 1981, University Microfilm International No. 8206108).

In Table 2.7, we present estimates of the average total cost equation for Medicare carriers with the inclusion of cost ratios for private health insurance claims processing. Equation 5 in the table applies to Blues, equation 6 applies to commercials. The equations are estimated separately due to the accounting definition difference between BOPXCLM and CEXPCLM. Both the variables BOPXCLM and CEXPCLM have positive signs in their equations although only the latter is statistically significant. This suggests that both types of Medicare carriers have higher cost per claim when their parent firm also has high administrative costs in its private business. Conversely, firms with low costs in private business also have low costs in Medicare.

Our findings are consistent with the hypothesis that there are joint economies in the insurance claims processing business.[1] Firms which operate with low costs in their private lines of business also have low costs in Medicare. Furthermore, our findings are inconsistent with the hypothesis of Blair and Vogel that insurance companies embrace nonprofit Medicare work in order to surreptitiously subsidize their private business either through "accounting ploys" or by using Medicare as a training camp for managers. Such a pattern of behavior would be consistent with negative signs on BOPXCLM and CEXPCLM, which is what we do not observe.

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[1] Our finding, however, is not conclusive since other hypotheses could predict the same result. One alternate hypothesis is that firms which are "efficient" in their private line of business will also be "efficient" in their Medicare work simply because many internal controls and management structures will be common throughout a company.

2.11 Cost Performance of Computer Systems

Our regression analysis reveals a weak relationship between claims processing cost and the type of computer system used by a carrier. In our regression, the Model B system (captured in the intercept term) is used as the standard of comparison for other systems. In general, the EDS system tended to have lower costs and in-house systems tended to have higher costs than the Model B systems. Since the statistical significance of this finding differed with the method of estimation, no strong evidence is available on this issue. For example, relative to Model B carriers, only the fixed effects method showed (with statistical significance) that carriers using the EDS system had lower costs of roughly $.50 per claim; only the Fuller and Battese method found (with statistical significance) that carriers with in-house systems had higher costs of $.54 to $.64 per claim. In all of the models, the less frequently used ASDC, MDCC, or OSI systems (captured in the OTHER dummy) were statistically significant from the Model B system. Further analysis showed that the negative sign of the coefficient reflected the generally lower costs of carriers using the ASDC or OSI systems.

Our findings on computer systems are consistent with the analyses of Blair and Vogel and the Perkins Committee, which also found that computer system differences could not explain variations in claims processing costs. Our findings do not necessarily mean that "all Medicare computer systems are alike." Discussions with various carriers revealed that they had found many technical and cost differences among the systems on occasions when competitive bids were solicited for a new system. Our own on-site inspection of different systems has also confirmed this point. What our findings may indicate is that carriers are efficiently selecting computer systems so that each carrier obtains the optimal system for its size, location, and labor force.

As a result of good selection practices, no carrier with any one computer system displays a consistently superior performance.

2.12 Effects of Wages and Input Prices on Costs

Our regression analysis has also attempted to explain variation in cost per claim in terms of uncontrollable factors such as wages and input prices. Our analysis has used regional wages and prices because these indicate the market conditions which firms face as they attempt to hire inputs. For example, if area wages rise, a carrier must begin to match these increases if it wishes to recruit or retain the same quality of staff as it has currently.

Our analysis shows that wage rates for clerical labor (LOMASAL) are statistically significant factors determining variation in claims processing costs. This result is consistent with the importance of clerical labor in Medicare claims processing. Neither wages for skilled technical workers such as senior system analysts (SRSYANL) nor rental costs for office space (RENT) were statistically significant in our regressions. These poor results probably reflect the imperfection of using BOMA data as a proxy for the rental prices facing a carrier.

The cost of computer services (BGFRM) is always positive and statistically significant in the various versions of the regression equations. This indicates that computer costs have a direct impact on claims processing costs. In our analysis, computer costs are measured in terms of the cost (measured in terms of cents per instruction times 10,000) of executing a standard set of instructions on a contemporary mainframe computer.[1] Our variable BGFRM, consequently, represents the prevailing market price of computing with the latest technology. This is an input price which carriers must consider in making resource allocation decisions such as substituting computers for clerical labor.

It is common in estimating models which pool time series and cross sectional information, to include variables for time in the regression. This is typically done either with a set of dummy variables which denote individual years or with a continuous variable which measures annual increments. These time variables are supposed to be proxies for factors which cannot be easily measured but which generally are believed to change over time. Changes in "technology," for example, are typically explained away by including them implicitly in the time variables.

In our models of cost per claim, we have been able to avoid using arbitrary time variables. Instead, we have used the BGFRM variable as a more refined measure of technological change. BGFRM is similar to a continuous time variable in that it declines steadily in value over the period of our data. Like a continuous time variable, BGFRM also has no cross-sectional variation (it has the same value for all firms in a given year) because it reflects national claims processing cost experience. However, BGFRM is analytically superior to a simple time variable because its year-to-year declines reflect a real technological occurrence (declining computer costs) rather than an arbitrary annual increment.

The size of the wage coefficients also provides information on how immediately sensitive a carrier's costs are to wage changes. Clerical wages have a direct impact on carrier costs. This is seen by computing the elasticity of cost per claim with respect to clerical wages.[1] The elasticity is approximately .9 indicating that a 1 percent increase in area clerical wages will affect a carrier's costs to produce an increase in cost per claim of .9 of 1 percent. For example, if average weekly clerical wages were to rise by $2, cost per claim would rise by about $.035. It is interesting to note that this represents almost a direct pass-through of wage costs since labor expenses account for roughly 60 percent of carrier expenses.

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[1] Science, February 12, 1982, Ibid.

2.13 Effects of Speed, Accuracy, and Assignment on Cost

Our analysis has also considered how cost per claim may be affected by variations in the payment deductible error rate (DEDERR), the mean processing time (MPROCTA) for a claim, the development rate (DEVLRA), and the assignment rate (ASSIGNA). The first two variables are, respectively, indicators of the accuracy and speed of a carrier's operation. The development rate indicates the effort which a carrier makes to obtain additional information prior to final processing. The assignment rate is sometimes considered to be an "uncontrollable" variable for a carrier because it reflects the attractiveness of the Medicare program to physicians.

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[1] The elasticity (E) of y with respect to X is defined as:

$$E = \overline{X}\, dy/\overline{Y}\, dx$$

where $\overline{X}$ and $\overline{Y}$ are respectively the means of X and Y. An equivalent formula in logarithms is d ln Y/d ln X. An elasticity measures the percentage change in y due to a percentage change in X. If E equals 1.0 ("unitary elasticity"), a 1 percent increase in y is associated with a 1 percent increase in X. If E is less than 1.0 ("inelastic" relationship), a 1 percent increase in X is associated with a less than proportionate change in y; if is greater than 1.0 (an "elastic" relationship), then a 1 percent change in X is associated with a larger proportionate change in Y.

We have found that the payment deductible error rate generally has no statistically significant effect on claims processing costs (except for the fixed effects equation using the inverse of claims volume). The positive coefficient on MPROCTA indicates that slower claims processing is associated with higher cost per claim. This result is statistically significant for the Fuller and Battese estimates, but it is not significant for the fixed effects estimates. This finding apparently reflects the fact that obsolete, higher-cost processing systems tend to have less automation and thus slower processing time. Lower costs tend to be associated with the newer, faster systems.

How large are the savings in claims processing costs that are associated with a faster system? Our Fuller and Battese regression coefficients indicate that the elasticity of cost per claim with respect to mean processing time is about .06. That is, changes in processing time have a rather small impact on costs. For example, if the average processing time of 13 days in our sample were reduced by one day (an 8 percent increase in speed), cost per claim would fall by a little more than $.01 per claim. This would create an annual savings of $60,000 for a medium size carrier with an annual volume of 6 million claims.

These rather small savings reflect the fact that the speed of claims processing is not limited so much by the speed of computers (the essentials of most claims processing can be completed in one overnight cycle) as by the labor costs of expediting a relatively small proportion of "complicated" claims. Claims that require follow-up with a physician or a search for supporting documentation can be expedited mainly by labor intensive actions such as phone calls or letters. These actions are not easily automated. For this reason, dramatic improvements in the processing speed of computers or in the automated portion of a claims processing system have to occur in order for processing time improvements to translate into lower processing costs.

HCFA has recently attempted to reduce carrier administrative cost by waiving certain types of claims development activity. We have consequently included DEVLRA in our cost equation to see how changes in the development rate affect carrier costs.[1]

Our analysis shows that a carrier's claims development activity has a consistent but relatively small impact on administration costs. Carriers who develop more of their claims have higher costs, with a one percentage point increase in the development rate implying an increase in cost per claim of two to four cents. Since the elasticity (.05) of cost per claim with respect to the development rate is quite low, large changes in development activity have a proportionately small impact on claims processing cost.

Higher values of the assignment rate variable (ASSIGNA) are associated with lower claims processing costs in our analysis. This result is statistically significant when using the Fuller and Battese method but it is not significant with the fixed effects method.[1] This result supports the hypothesis that assigned claims contain fewer errors and are generally easier to process because they are prepared by providers. Unassigned claims, in contrast, are usually prepared by beneficiaries and these are believed to contain more errors or omissions which complicate processing a claim. Our findings in this regard show that the financial importance of this relationship is not large.[2] We find that a one percentage point increase in a carrier's assignment rate is associated with slightly less than a $.01 decrease in cost per claim. (The elasticity is -.12.) This small magnitude does not necessarily mean that direct billing by providers is an unimportant route to achieving economies in claims processing. Instead, the small magnitude may reflect the fact that the assignment rates are only one indicator of how closely providers and carriers are working together to expedite claims processing. The assignment rate does not measure subtle factors such as the frequency of tape-to-tape claims submission or the amount of effort that a carrier may devote to educating a provider's staff in claims submission procedures. Nonetheless, our findings with the Fuller and Battese method do suggest that efforts to improve the assignment rate are not likely to have a large impact on a carrier's cost per claim.

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[1] Note that our data are based on a period ending with FY 1981. Variations in the development rate in our data consequently reflect "natural" variation due to differences in carrier operating systems rather than due to changes in the policies governing all carriers.

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[1] Our analysis treats the assignment rate as an exogenous variable beyond the control of a carrier. This approach hypothesizes that basic features of the Medicare program (e.g., payment rules) determine physician participation and that carriers cannot seriously affect the program's attractiveness to providers. An alternate hypothesis would be that carriers can influence the assignment rate by the quality of their service. Faster processing time, lower error rates, or a less rigorous program of utilization review with correspondingly higher levels of payment might each encourage higher assignment rates. (See Sloan, Mitchell, and Cromwell (1978) for a discussion of the assignment decision in Medicaid.) In an early phase of our analysis, we tested these hypotheses by regressing the assignment rate on processing time, error rates, and benefit payments per enrollee. Since the resulting regressions had little explanatory power (low R^2s and generally insignificant coefficients), we concluded that it was more correct to view the assignment rate as a factor beyond a carrier's control.
A technical consideration also encouraged us to treat the assignment rate as exogenous. We felt that any explanatory variables (e.g., MPROCTA, DEDERR, MDROL, BENROL, etc.) that might plausibly appear on the right hand side of an equation with ASSIGNA as the dependent variable should also appear on the right hand side of one or another of the equations in any simultaneous equation models that we might formulate. As a result, the assignment rate equation would not satisfy the usual econometric criteria for equation identification (see H. Theil, Principles of Econometrics, Chapter 9, 1971, University of Chicago Press).

[2] Blair and Vogel also found no statistically significant relationship between cost per claim and the assignment rate.

Our findings about the effects of the assignment rate are less clear when the fixed effects method of estimation is used. The fixed effects method indicated either no statistically significant relation or a weak positive correlation of assignment with administrative costs. This result is counter intuitive and it may reflect some collinearity between the fixed effect dummy variables and the ASSIGNA variable.

2.14 Carrier Experience

In our analysis, we have attempted to measure the effect of carrier experience upon cost per claim. This was done by including in the cost equation a variable (LEXPER) which measures the logarithm of the cumulative months of experience which a carrier had accumulated as a Medicare Part B carrier starting from fiscal year 1976. For most of the carriers, this variable simply grew steadily with time. However, fixed price carriers were credited with zero experience for their first year to take account of the many new conditions that they faced. They then accumulated experience in succeeding years.

In our regressions, LEXPER has a negative sign and it is statistically significant in most of the equations regardless of which estimating method is used. This can be interpreted to mean that cost per claim does fall as carriers become more experienced at their work.

2.15 Cost Savings of the Fixed Price Experiment

In our regression analysis earlier in this chapter, we found that fixed price contracts have resulted in lower administrative cost payments by HCFA. In this section, we estimate the extent of these cost savings under different assumptions about what costs the government might have incurred in the absence of the fixed price experiment.

Table 2.11 offers estimates of the reduction in administrative cost that were realized by the government from the Part B fixed price experiments. Appendix Tables A2.3 through A2.5 present computational details. The estimate considers the savings in the government's administrative cost under three alternate assumptions:

> Assumptions 1: Incumbent carriers continued to process claims under a cost contract in their traditional territories. Incumbent's costs followed their historical trends. (Trended historical costs for this computation are based on the previous regression analysis.) Under this assumption, savings realized by the experiment equals projected incumbent costs less fixed price payments net of liquidated damages.
>
> Assumptions 2: The incumbent carrier(s) had continued to process claims under a cost contract. Incumbent costs declined at the average rate for its peer group. Under this assumption, the savings realized by the experiment equals incumbent carrier costs less fixed price payments net of liquidated damages.
>
> Assumption 3: The Illinois and New York territories were each consolidated (as in the experiment); the Maine territory was unchanged. All territories operated under a cost contract with new carriers. New carriers achieved costs equal to the average for their peer group. Savings realized equals estimated cost of new carriers less fixed price payments net of liquidated damages.

Table 2.11: Savings in Carrier Administrative Costs Realized by HCFA Due to Fixed Price Contracts (all dollars in 1981 constant dollars)

Comparison Assumption	Illinois (1976-1983)	Upstate New York (1976-1982)	Maine[a] (1978-1984)	Total
Assumption 1: No change in incumbents	$37,740,911[b] to $64,734,411[c]	$8,127,263[b] to $33,886,554[c]	$4,382,538[c] to $4,142,399[b]	$50,250,712 $102,763,364
Assumption 2: Incumbents improve to peer group average	$30,392,612	$19,583,170	$(1,073,479)	$48,902,303
Assumption 3: New carriers replace incumbents; Ill & NY consolidated	$27,663,108	$17,301,240	$ 480,158	$45,444,506

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[a] Includes Maine 1 and Maine II contracts.

[b] Historical trends based on Fuller & Battese regression model.

[c] Historical trends based on Fixed Effects regression model.

Under these alternative assumptions, the New York and Illinois fixed price experiments were successful in realizing cost savings for the government while the Maine experiment has contradicting findings. Savings under assumption 1 are the most difficult to estimate because they are sensitive to the method that is used to predict the historical trends in incumbent costs. For the Illinois experiment, mean estimates of savings range from $37.7 million to $64.7 million; for upstate New York, they range from $8.1 million to $33.8 million; for Maine, the savings are between $4.1 million and $4.3 million. (The wide range of estimates for Illinois and New York reflect discrepancies between the fixed effects and the Fuller and Battese methods of estimation as discussed in Section 2.7.1. Recall also that the fixed effects estimates for Maine are not statistically significant.)

Savings under Assumption 2 are somewhat smaller than under assumption 1, because we assume that incumbent carriers could have improved their performance to match their peer group. Implicit in assumption 2 is the belief that incumbent carriers could have taken steps such as moving out of high range areas or upgrading their computer systems to achieve greater efficiency. Under assumption 2, the Illinois and New York, price experiments respectively saved $30.3 million and $19.6 million. The Maine experiment, however, incurs a loss of $1.07 million (six percent of the total fixed price expenditure). This happens because Union Mutual's baseline costs were somewhat lower than those of its peer group even though the carrier was a poor performer relative to all carriers.

The smallest savings estimates occur under assumption 3 where it is assumed that the government could have changed carriers and consolidated territories in lieu of the fixed price experiments. Here the savings from the experiments are $27.6 million for Illinois, $17.3 million for New York, and $480 thousand for Maine. Note that consolidations of territories, by themselves, offer rather small savings to the government because scale economies are not particularly large. This is seen most easily by comparing the estimates for assumption 2 (i.e., no consolidation) with assumption 3.

Our contradictory findings for Maine may also reflect one of the implicit hazards of competing a fixed price contract at a time when the inflation rate is changing. Our discussions with carriers in the fall of 1982 revealed that most of them expected high rates of inflation to continue throughout the 1980s. These expectations were apparently reflected in the relatively high fixed price of the Maine II contracts. Under assumption 2, the government appears to lose money on the Maine experiment because assumed historical cost reductions are not reflected in the Maine II fixed price. In contrast, bidders in the New York, Illinois, and Maine I experiments told us that they had underestimated the rate of inflation on their bids in 1977-1978. That is, they had expected to acheive gains in efficiency which would exceed the cost reductions assumed for traditional carriers under assumptions 2 and 3.

2.16 Effect of Administrative Cost on Benefit Payments

The basic job of a Medicare carrier is to serve as a steward of benefit payments. Consequently, it is important to determine if variations in a carrier's administrative cost have any appreciable effect on the level of benefit payments which a carrier makes. It is especially important to determine if the lower costs of fixed price carriers have led to benefit payment levels which are appreciably different from those of similar cost reimbursed carriers.

The second equation in our model considers how carrier costs and other characteristics may affect benefit payments. The equation hypothesizes that the level of benefit payments per enrollee (BENROL) are influenced by cost per claim, the assignment rate (ASSIGNA), whether or not the carrier is a Blue Shield Plan (BLUE), whether or not a fixed price contract is in effect (MEFP, ILLFP, UNYFP), the availability of physicians as measured by the ratio of patient care physicians to population (MDPOP), and geographic accessibility to urban medical facilities as measured by population per square mile (POPSQMI).

We find from the equation that higher levels of cost per claim are associated with lower levels of benefit payments per enrollee.[1]

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[1] Note that this equation is linked to the previous equation for carrier costs by our use of the value of cost per claim predicted from the first equation as a right hand side variable in this second equation.

With the Fuller and Battese method, the elasticity of BENROL with respect to CPC is around -.20 while lower elasticities are found (around -.72) with the fixed effects method. In fiscal year 1981 a \$.04 increase (i.e., one percent) in the average carrier's cost per claim would be associated with a reduction in benefit payments per enrollee of \$.58 to \$1.96, respectively, using the Fuller and Battese or fixed effects methods. For the total Part B program, this translates into a trade-off where an additional \$4.5 million in Part B administrative costs would respectively save \$16 million to \$58 million in program benefit payments. Stated another way, one dollar in additional resources devoted to Medicare Part B administration results in savings in benefit payments of \$3.50 to \$13.

Estimation results are reported in Table 2.12. Equation 1 in the table is estimated using the fixed effects method. CPC variable in this equation is a predicted value derived from equation 2 (the CPC equation with the higher R^2) in Table 2.7. This (two-stage least squares) procedure helps to adjust for a random error in the cost equation that might affect the benefits equation.

A corresponding Fuller and Battese estimate of the benefits equation is also given by equation 2 in Table 2.12. This equation also uses a predicted value of CPC derived from equation 2 in Table 2.8.[1]

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[1] We experimented with benefits per enrollee (BENROL) and benefits per claim (BENCLM) as dependent variables. The BENROL variable resulted in a better statistical fit (R^2s around .30 to .40) than did the BENCLM equation (R^2s around .20 to .30). Results for the two specifications were generally in agreement (signs and significance levels were similar for most variables). We did find, however, that smaller trade-offs occurred between cost per claim and benefits when BENCLM was used.

Table 2.12: Benefits per Enrollee—All Carriers 1976-1981
(t statistics in parentheses)

	Dependent Variable: BENROL	
	1	2
Independent Variable	Fixed Effect Estimate	Fuller and Battese Estimate
INTERCEPT	137.90	64.74
	(4.64)	(1.28)
CPC	-50.83[a]	-14.54[b]
Cost per claim	(-19.37)	(-2.17)
ASSIGNA	5.63	3.81
Assignment rate	(9.23)	(10.67)
MDPOP	-0.14	69891.20
Physicians per capita	(-4.67)	(2.58)
BLUE	22.11	-45.97
Blue Cross dummy	(1.18)	(-2.61)
ILLFP	65.15	-11.69
Fixed price, Illinois dummy	(1.68)	(-0.62)
MEFP	-72.84	-22.97
Fixed price, Maine dummy	(-1.12)	(-0.77)
UNYFP	-30.31	-49.81
Upstate New York fixed price dummy	(-0.66)	(-3.05)
ME	-151.10	-152.14
Maine dummy	(-4.65)	(-1.46)
UNY		-106.00
Upstate New York dummy		(-1.01)
ILL		-14.71
Illinois dummy		(-0.14)
UTICA	-85.81	
Utica, New York dummy	(3.56)	
ROCHNY	-16.64	
Rochester, New York dummy	(-0.74)	
BUFF	-56.79	
Buffalo, New York dummy	(-2.24)	
HCSCT	-13.96	33.86
Cook County, Illinois dummy	(-0.44)	(0.61)
CNAT	-38.99	
Illinois, rest of state dummy	(-1.49)	
$\bar{R}^2$ statistic	.93	
Number	334	
F statistic	62.04	
Variance component for cross sections		8659.08
Variance component for time series		204.18
Variance component for error		263.57
Transformed regression M.S.E.		311.44

[a] Cost per claim predicted from regression number 2 in Table 2.7.

[b] Cost per claim predicted from regression number 2 in Table 2.8.

At the margin, the commitment of more resources to carrier administration appears to offer a very favorable savings in terms of program benefit dollars. This savings results apparently from more effort in the areas of utilization review, audit, detection of duplicate claims, verification that providers have used the correct procedure code in billing for services, and similar functions.[1]

The benefits equations generally show that the fixed price experiments had little effect on the level of benefits paid to enrollees. The fixed effects models in Table 2.12 show no significant effects for the Maine and upstate New York experiments as shown by the coefficients for MEFP and UNYFP. There is some evidence, however, that the benefit payments rose during the Illinois experiment as shown by the occasional significance (at the 10 percent level) of ILLFP. This result for Illinois is consistent with our findings in the case studies that Medicare Part B utilization rose in Illinois during this period. The Fuller and Battese estimates consistently show no effect by the experiments.

Our two methods of estimation offer inconsistent findings on whether there is a significant difference in the level of benefit payments per enrollee between Blue Shield and commercial carriers. The fixed effects method would show no significant difference. This would indicate that Blue Shield carriers on the average exercise the same quality of utilization review as do the commercials. The Fuller and Battese method, in contrast, shows that Blues consistently pay lower benefits.

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[1] A recent study by the GAO (1983) also finds a favorable trade-off between carrier administrative cost and benefit payments. The GAO used a research method different from ours. They examined a sample of 10 carriers between October 1978 and June 1981. A detailed analysis was performed on the reductions in benefit payments that were achieved by more comprehensive efforts in carrier utilization and review functions. This function typically only accounts for 5 percent of carrier administrative costs, but it is a function that is often the target of budget cutting because it is not essential for day to day claims processing work. The GAO in particular examined the prepayment screening portion of the utilization review programs. They found that a $1 increase in the administrative cost of prepayment screening led to a $7 reduction in benefit payments.

One reason why the two methods may differ in their findings is because our data do not contain very good information on the level of prevailing medical prices in an area. The fixed effects method assumes that each carrier has its own unique level of regional benefit payments. This unique level would presumably reflect only (1) difference in area utilization patterns and (2) difference in area medical prices. There should be no other reasons for differences in benefit payments (aside from random fluctuations) since Medicare benefits are national in scope. The fixed effects model tends to capture in each carrier's separate intercept terms any nonrandom unexplained differences in benefit payment levels not already accounted for by the variables POPSQMI and MDPOP (which serve as proxies for regional differences in either prices or utilization). The fixed effect method further finds no common tendency for Blues to pay either higher or lower benefits than do commercials.

The Fuller and Battese method is less flexible about controlling for any "regional" differences in benefit payment levels that are not explainable by differences in MDPOP and POPSQMI. This may explain why the Fuller and Battese estimate finds that Blues have lower levels of benefits than do commercials. Since data on regional medical prices are not directly available in our model, this may result in confusion between benefit payment differences due to regional differences and any differences between Blues and commercials that might result from managerial efficiency.

The assignment behavior of providers and the physician population ratio both have statistically significant effects on Medicare benefit payments per enrollee. Unfortunately, the two estimation techniques disagree about the direction of the impact. In the fixed effects models ASSIGNA has a positive sign and MDPOP a negative sign; in the Fuller and Battese models, ASSINGA is negative and MDPOP is positive.

We had expected that both variables would have positive signs. Studies of medical utilization have found that more care is consumed in areas where there are more physicians. Furthermore, physicians are more likely to accept assignment for relatively expensive procedures where patients are less likely to be able to pay more than the Medicare reasonable charge. One reason for the inconsistent findings of the two methods may be that there is little variation in MDPOP and ASSIGNA from year to year for a given carrier. This makes it difficult for the fixed effects method to distinguish any unique characteristic of the carrier (i.e., the "fixed" carrier effect) from variation in other variables.

To summarize, the various equations for BENROL agree that the use of more economic resources in claims processing leads to lower levels of benefit payments. This apparently occurs because the additional resources are directed toward the more discretionary functions of utilization review which are relatively expensive, labor intensive activities. Our equations have not been equally successful in explaining the reasons for regional variations in BENROL which may result from regional prices, utilization patterns, or possibly differences in the managerial efficiency of Blue Shield and commercial plans. However, we do find that the fixed price experiments, in themselves, seem to have had no effect on benefit payments. This finding suggests that the merits of fixed price contracts--namely, lower claims processing costs to the government--are not offset by any adverse impact in the form of either benefit overpayments or benefit underpayments.

APPENDIX TO CHAPTER 2

Table A2.1: Descriptive Statistics

Table A2.2: Correlation Coefficients

Table A2.3: Medicare Part B Administrative Cost in Illinois Under Alternative Assumptions

Table A2.4: Medicare Part B Administrative Cost in Upstate New York Under Alternative Assumptions

Table A2.5: Medicare Part B Administrative Cost of In Maine Under Alternative Assumptions

Table A2.1: Descriptive Statistics

VARIABLE	N	MEAN	STD	MIN	MAX
CLMSPRT	335	2.20913E+06	2.34264E+06	7.19392E+04	0.00000E+00
CLMS2	335	1.03518E+13	2.13021E+13	5.17526E+09	0.00000E+00
IVCLM	335	1.20809E-06	1.57700E-06	9.12751E-08	0.00000E+00
DEDERR	335	2.4057	1.6790	0.4000	14.6000
MPROCTA	335	13.2551	4.7392	4.4500	45.8750
ASSIGNA	335	50.8313	15.5440	22.3614	97.3083
BLUE	335	0.5463	0.4986	0.0000	1.0000
HCSCT	335	0.0209	0.1432	0.0000	1.0000
CNAT	335	0.0209	0.1432	0.0000	1.0000
BUFF	335	0.0179	0.1328	0.0000	1.0000
ROCHNY	335	0.0209	0.1432	0.0000	1.0000
ME	335	0.0179	0.1328	0.0000	1.0000
MEFP	335	0.0119	0.1088	0.0000	1.0000
ILLFP	335	0.0090	0.0943	0.0000	1.0000
UNYFP	335	0.0090	0.0943	0.0000	1.0000
EDS	335	0.2299	0.4214	0.0000	1.0000
OWNSYS	335	0.1552	0.3627	0.0000	1.0000
OTHER	335	0.1612	0.3683	0.0000	1.0000
LEXPER	335	3.4457	1.1573	-6.9078	4.2767
UTICA	335	0.0209	0.1432	0.0000	1.0000
LOMASAL	335	155.7303	9.6635	134.0000	179.7615
SRSYANL	335	28719.9275	3080.2273	23341.3567	37642.4757
BGFRM	335	178.3085	105.3174	57.0000	362.1701
RENT	335	7150.0730	1722.7863	2763.0000	13933.0000
DEVLRA	335	8.9213	3.2691	2.0417	21.2509
FPC	335	3.7126	0.9139	1.7064	7.0992
PCX	335	3.7042	0.9461	1.0499	7.0992
UPOP	335	13.1492	97.5054	0.0008	734.0940
ENROL	335	262.9795	107.9759	87.3009	142.2428

Table A2.2: Correlation Coefficients

	CLMSPRT	CLMS2	IVCLM	DEDERR	MPROCTA	ASSIGNA	BLUE	HCSCT	CNAT	BUFF	ROCHNY	ME	MEFP
CLMSPRT	1.00000												
CLMS2	0.95754	1.00000											
IVCLM	0.45307	-0.30743	1.00000										
DEDERR	0.10569	0.06431	-0.18274	1.00000									
MPROCTA	0.00183	0.01167	0.04542	0.47016	1.00000								
ASSIGNA	0.18503	0.16519	-0.23244	0.01356	0.03973	1.00000							
BLUE	0.14574	0.17887	-0.07628	0.05278	-0.00037	0.18887	1.00000						
HCSCT	0.01995	-0.00724	-0.05925	0.08826	0.08948	0.03510	0.00738	1.00000					
CNAT	0.01795	-0.00824	-0.05977	0.15424	0.09484	-0.05000	-0.16029	0.41638	1.00000				
BUFF	0.03177	-0.03691	-0.01327	-0.02731	0.03172	0.08846	0.12308	-0.01973	-0.01973	1.00000			
ROCHNY	-0.05396	-0.04511	0.06581	0.06050	0.14372	0.06344	0.13314	-0.02134	-0.02134	0.45234	1.00000		
ME	-0.08987	-0.06289	0.03466	-0.05416	-0.07557	0.18220	0.03266	-0.01973	-0.01973	-0.01824	-0.01973	1.00000	
MEFP	0.06963	-0.05069	0.01452	-0.03644	-0.07059	0.14249	0.10019	-0.01606	-0.01606	-0.01485	-0.01606	0.81403	1.00000
ILLFP	0.06841	0.03649	-0.04968	0.13255	0.13465	-0.00152	-0.10430	0.65070	0.65070	-0.01284	-0.01389	-0.01284	-0.01045
UNYFP	0.01915	-0.00752	-0.04063	-0.04379	0.00877	0.05550	0.08663	-0.01389	-0.01389	0.70390	0.65070	-0.01284	-0.01045
EDS	0.49305	0.46795	-0.24027	0.14047	-0.01817	0.08240	0.34113	0.06900	0.06900	0.24720	0.06900	0.14021	0.20122
OWNSYS	-0.00967	0.00898	0.10336	0.08263	0.23688	0.10804	0.02639	-0.06262	-0.06262	-0.05789	-0.06262	-0.05789	-0.04712
OTHER	-0.14215	-0.12162	-0.02216	-0.08187	-0.05923	-0.01446	0.12232	0.16298	-0.06404	-0.05920	0.16298	-0.05920	-0.04819
LEXPER	0.14291	0.12984	-0.07855	-0.16375	-0.15261	-0.08067	-0.02662	-0.22359	-0.22234	-0.24682	-0.22118	-0.24682	-0.27217
UTICA	-0.01393	-0.03707	-0.05425	-0.06398	0.03667	0.09284	-0.03454	-0.02134	-0.02134	0.45234	0.41638	-0.01973	-0.01606
LOMASAL	0.40547	0.39279	-0.26173	0.11311	0.07222	0.06016	0.08380	0.19597	0.19597	-0.04148	-0.02924	0.01280	0.07183
SRSYANL	0.00711	-0.06072	-0.20227	0.17005	0.07020	0.25010	-0.07419	0.02939	0.02939	-0.04449	-0.05321	-0.03977	-0.04809
BGFRM	-0.20246	-0.18294	0.16646	0.20236	0.17366	0.01963	0.00238	-0.01420	-0.01420	-0.00314	-0.01420	-0.00314	-0.07188
BOMA	0.36822	0.34949	-0.23041	0.04607	0.10596	0.22410	-0.01592	0.12375	0.12375	0.09194	0.05904	0.09218	0.15722
DEVLRA	0.01515	0.00101	-0.01628	0.05388	0.01977	-0.21120	-0.01218	-0.10700	-0.04889	-0.01058	-0.00364	-0.00493	-0.04839
CPC	0.32699	-0.24311	0.47509	0.16798	0.25464	-0.12940	-0.02030	0.06841	0.01581	-0.01624	0.03334	0.01394	-0.03042
CPC*	-0.32953	-0.24339	0.46462	0.15904	0.24720	-0.12904	-0.01179	0.01146	-0.03885	0.02828	0.07315	-0.03539	-0.08952
MDPOP	-0.05236	-0.05448	-0.03470	-0.00851	0.02435	0.12023	0.12308	-0.01973	-0.01973	-0.01824	-0.01973	-0.01824	-0.01484
BENROL	0.48192	0.46802	-0.33273	0.06421	-0.05573	0.10711	0.01521	0.00388	-0.07900	-0.08079	-0.08932	-0.08600	-0.05888

Table A2.2: Correlation Coefficients (continued)

	ILLFP	UNYFP	EDS	OWNSYS	OTHER	LEXPER	UTICA	LOMASAL	SRSYANL	BGFRM	RENT	DEVLRA	CPC
ILLFP	1.00000												
UNYFP	0.00904	1.00000											
EDS	0.17400	0.17400	1.00000										
OWNSYS	-0.04075	-0.04075	-0.23418	1.00000									
OTHER	-0.04167	-0.04167	-0.23949	-0.18791	1.00000								
LEXPER	-0.31757	-0.31757	-0.17752	0.02864	0.11497	1.00000							
UTICA	-0.01389	0.65070	0.06900	0.16791	-0.06404	-0.22195	1.00000						
LOMASAL	0.07439	-0.07104	0.12652	-0.01830	-0.01489	-0.01859	-0.09504	1.00000					
SRSYANL	0.01752	-0.11085	-0.11247	0.09444	-0.01125	0.02380	-0.05321	-0.11983	1.00000				
BGFRM	0.08242	-0.08242	-0.02526	0.03056	-0.13558	-0.47038	-0.01420	-0.06364	-0.00400	1.00000			
RENT	0.13606	0.12687	0.13074	-0.02011	-0.01579	0.13771	0.06999	0.48672	-0.02916	-0.53173	1.00000		
DEVLRA	-0.01011	-0.07534	0.09380	-0.09808	-0.06257	-0.04222	-0.13643	-0.07781	-0.01119	0.24618	-0.30057	1.00000	
CPC	-0.01537	-0.15046	-0.12266	0.09685	-0.11704	-0.37940	-0.08286	0.06567	-0.06863	0.72680	-0.37903	0.26666	1.00000
CPC*	-0.09814	-0.08428	-0.13475	0.09736	-0.10915	-0.44074	-0.03908	0.05487	-0.06490	0.71475	-0.36310	0.25386	0.97952
MDPOP	-0.01284	-0.01284	-0.07378	-0.05789	-0.05920	0.01586	-0.01973	0.03531	0.02810	-0.00314	-0.05152	-0.00308	0.02813
HENROL	0.01042	-0.06108	0.06470	-0.12421	0.06202	0.24732	-0.08864	0.40745	-0.09394	-0.31357	0.45564	-0.06650	-0.28221

	*CPC	MDPOP	BENROL
CPC*	1.00000		
MDPOP	0.02837	1.00000	
[illegible]	-0.2852[illegible]	[illegible]	1.00000

Table A2.3: **Medicare Part B Administrative Cost in Illinois Under Alternative Assumptions**

Fiscal Year	Claims Processed (55%) HCSC	CNA	Total Illinois
1976	1,515,178	1,267,411	2,782,589
1977	1,652,120	1,458,868	3,110,988
1978	1,890,828	1,700,844	3,591,672
1979a	1,913,636	1,721,361	3,634,997
1980a	2,693,945	2,423,266	5,117,211
1981a	2,769,728	2,491,436	5,261,164
1982a	2,847,644	2,561,523	5,409,167b
1983a	2,952,864	2,618,578	5,571,442b

Fiscal Year	Cost Per Claim HCSC	CNA	Average Peer Group No. 1
1976	$3.60	$3.15	$3.13
1977	3.48	3.13	2.84
1978	3.48	3.02	2.94
1979	3.11	2.64	2.72
1980	3.00c	2.55c	2.65
1981	2.99c	2.54c	2.69
1982d	2.96c	2.51	2.66
1983d	2.93	2.48	2.63

	HCSC	CNA	Total
Total Cost	$39,395,647	$29,975,465	$66,641,608

Total HCSC & CNA . . .	$69,371,112	
EDSF Fixed Price . . .	41,800,000	$41,800,000
Administrative Cost. . Savings Before Liquidated Damages	27,571,112	24,841,608
Liquidated Damages . . Paid by EDSF	2,821,500	2,821,500
Administrative Cost. . Savings After Liquidated Damages	$30,392,612	$27,663,108

---

[a] HCSC and CNA Claims volume estimated based on 1978 market share.

[b] Extrapolated.

[c] Assumes cost reductions equal to national average.

[d] Extrapolated.

Table A2.4 Medicare Part B Administrative C[illegible] New York Under Alternative Assumptions

Fiscal Year	Claims Processed (24%) BSWNY	 (14%) GVMC	 (62%) Metropolitan	 (100%) Total
1976	643,010	284,575	1,253,443	2,181,028
1977	605,057	328,714	1,511,757	2,445,528
1978	663,466	365,036	1,663,679	2,692,181
1979	675,717	396,614	1,718,491	2,790,822
1980a	821,819	479,395	2,123,034	3,424,248
1981a	877,155	511,673	2,265,983	3,654,811
1982a	937,234	546,720	2,421,187	3,905,141b

Fiscal Year	Cost Per Claim BSWNY	 GVMC	 Metropolitan	Average Peer Group No. 1
1976	$3.46	$4.14	$3.21	$3.13
1977	3.57	4.05	3.03	2.84
1978	3.71	3.50	2.71	2.79
1979	3.62c	3.41c	2.64c	2.72
1980	3.49c	3.29c	2.55c	2.65
1981	3.48c	3.28c	2.54c	2.69
1982d	3.45	3.25	2.51	2.66

Year	BSWNY	GVMC	Metropolitan	Total
Total Cost 1979–1982	$11,600,201	$6,384,790	$21,783,329	$36,864,410

Total 3 Carriers . . .	$39,768,320		
Value of Fixed Price Contract	20,296,150		
Liquidated Damages Through FY 1981 . .	111,000		
Net Fixed Price. . . .	20,185,500		20,185,500
Total Savings of Fixed Price Contract Versus No Change in Carriers . . .	$19,583,170	Total Savings of Fixed Price Contract Versus Alternative of a Consolidation . . .	$17,501,230

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[a] BSWNY, GVMC, and Metropolitan allocated in proportion to total volume based on market share in 1978.

[b] Total estimated by linear extrapolation.

[c] Assumes annual cost reduction equal to national average.

[d] Extrapolated.

Source: HCFA Part B Carrier Workload Report and Analysis of Intermediaries and Carriers Administrative Costs. Various issues

Table A2.5: Medicare Part B Administrative Cost in Maine Under Alternative Assumptions.

Fiscal Year	Claims[a]	"Union Mutual" (extrapolated)[b]	Peer Group No. 4[c]
1978	549,344	3.08	3.63
1979	696,677	2.96	3.34
1980	794,049	2.84	3.09
1981	870,260	2.72	2.89
1982	946,908	2.61	2.89
1983	1,031,049	2.51	2.69
1984	1,115,190	2.41	2.58

Total Cost "Union Mutual"	$16,123,321	Total Cost Peer Group	$17,676,958
Maine Fixed Price Less Damages	17,196,800		17,196,800
Net Savings (Loss) from Fixed Price Experiment	($1,073,479)		$ 480,158

[a] Values for 1982-1984 are linear extrapolations from 1976-1981 claims volume.

[b] Extrapolated from Union Mutual's 1976 cost per claim of $3.34; annual cost reduction of 4 percent per year assumed. Note that Union Mutual's 1977 cost per claim of $3.01 was ignored in this calculation because some quality assurance activities had been discontinued.

[c] Values for 1983 and 1984 extrapolated (semilog) from 1976-1982 data.

of payment errors. Providers were also asked about any disruptions caused by changes in procedure codes at the time the fixed price contracts were initiated, and about their use of the telephone services provided by the carriers. These issues are discussed in Section 3.3.

A potential negative impact of performance problems under fixed price contracting is their effect on the willingness of health care providers to accept assignment for Medicare cases. If providers are unwilling to accept assignment because of payment delays or other problems, Medicare beneficiaries may experience higher costs for medical care. Providers' policies about accepting assignment and the impact of fixed price contracting on those policies are discussed in Section 3.4. Section 3.5 summarizes the chapter.

3.1 Survey Methodology

The purpose of the survey of Medicare Part B providers was to collect accurate information about the experiences and attitudes of providers of medical services in the areas served by fixed price carriers and in comparison areas served by cost reimbursed carriers. The sample design and the operational procedures used for the survey were developed to insure that the information gathered was representative of the experiences of all providers in the experimental and comparison areas and that the survey respondents were well-qualified to provide the information needed.

The Provider Sample

The design of the provider sample was dictated by several considerations.

- Providers in the sample should be representative of the population of providers in the areas served by the fixed price and comparison carriers.

3.0 EFFECTS OF FIXED PRICE ON MEDICARE PROVIDERS

To gain additional insight into the level of services provided by the fixed price carriers, we conducted a survey of the health care providers in the territories served by the fixed price carriers. The attitudes of the providers in the survey sample are subjective and based on their limited experience, but they serve as another source of information about the adequacy of the services provided under fixed price contracting.

In order to compare the performance of the fixed price carriers with that of cost reimbursed carriers, it was necessary to obtain a sample of providers that was representative of all providers in the territories being studied and to insure that the survey respondents were qualified to supply the information needed. The design of the sample and the procedures used to conduct the survey are described in Section 3.1.

Survey respondents were asked a number of questions about their overall satisfaction with the performance of the carrier for their area and their attitudes toward Medicare in general. If carriers under fixed price contracting cut back on their level of service in order to maximize profits, then this should be reflected in a higher level of dissatisfaction among providers with their carriers in the experimental sites and, possibly, more negative attitudes toward Medicare in general. The providers' overall level of satisfaction with carrier performance and their feelings about the Medicare portion of their caseloads are discussed in Section 3.2.

Respondents were also asked more specific questions about any disruptions or hardships experienced under fixed price and cost reimbursed contract arrangements. These questions focused on delays in payment and any adverse consequences of such delays, and on the perceived frequency

- Medicare equipment suppliers and other nonphysician providers (a small fraction of all providers) should be adequately represented.
- Providers with a low volume of Medicare claims as well as those with a high volume of claims should be adequately represented in the sample.
- Providers should have been in business for a long enough period to have had experience with the cost reimbursed carriers that served the experimental sites before the advent of the fixed price contracts.

In order to meet these criteria, a stratified sample was drawn at each site. Stratification was by type of provider (physician versus other provider) and by dollar volume of assigned claims (high volume versus low volume),[1] forming a total of four strata. Sampling was not proportional within these strata. Rather, a higher proportion of nonphysician providers was included in the sample to insure that adequate information about this relatively small group was collected. Sample weights were then used to adjust the survey results so that they are representative of the population of providers in the areas served by the carrier.

The sampling frames used for the survey in each site were lists of providers supplied by the carrier that served the area. For each area served by a fixed price carrier, the carrier's records were checked to insure that the provider had been in business long enough to have had experience under the previous cost reimbursed carrier. (This required the provider to have been in business since 1977 in Maine and its comparison site, Nebraska, and since 1979 in the other sites.)

In addition to the three carriers providing services under fixed price contracts, three comparison carriers providing services under cost reimbursed contracts were selected for the provider survey sample. The comparison site for Blue Shield of Massachusetts' site in Maine was Mutual of Omaha in Nebraska. The comparison site for Blue Shield of Western New York was Wisconsin Physicians Service, based in Madison, Wisconsin. The comparison site for EDSF's Illinois operation was Occidental in southern California. Unfortunately, problems were encountered in obtaining the sampling frame needed for Occidental, and it had to be dropped from the sample. Thus, the final provider survey sample included five sites or carrier areas--Maine, western New York, Illinois, Nebraska, and Wisconsin.

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[1] The distribution of total dollar volume of assigned claims was used to divide providers into a low and high group at each site.

Survey Procedures

The provider survey was conducted by telephone during November and December 1982. The telephone interview was preceded by letter which explained the purpose of the study and the type of questions to be asked. Providers were advised that a person on their staff who was familiar with Medicare claims processing could be designated as the survey respondent. Experienced professional surveyors who had been trained in Medicare procedures and terminology conducted the survey; the average time required for the telephone interview was 20 minutes.

The first task of the interviewer was to make sure that a qualified respondent had been reached. Interviewers were instructed to ask to speak with either the provider or "the person most knowledgeable about Medicare Part B claims processing during the past several years." Respondents were then asked to verify the number of years the provider had been serving the area, to make sure that the provider's experience included the transition period between cost reimbursed and fixed price carrier contracts. If the provider had not been in business since 1977 in Maine and Nebraska, and 1979 elsewhere, the interview was terminated. Respondents were also asked to verify that they submitted their claims to the current carrier, to insure that no misunderstanding had taken place about the identity of the carrier who was the subject of our questions.

Characteristics of Providers and Respondents

The providers included in the sample were quite diverse in both type of practice and size. Table 3.1 shows the type of practice for the providers in the sample. The three experimental sites appear quite similar; in all three, solo practice physicians form the majority of the providers, followed by group practice physicians. Medical equipment suppliers form a much smaller portion of the sample (after weighting), accounting for only 12 to 14 percent. The pattern for the two comparison sites is somewhat different. Physicians in group practice form the largest group of providers at both of these sites, with solo practice physicians a smaller group. The reason for this difference between the experimental and comparison sites is unclear. It may reflect actual geographic differences in the proportion of providers that are in group versus solo practice, or it may be an artifact of the sampling frames used in the five sites.

Table 3.2 shows the distribution of the number of patients seen and the number of Medicare B claims submitted by the providers' practices at each site. The practices of providers in the two comparison sites saw a higher volume of cases per week, reflecting the greater incidence of group practice physicians in the provider sample at those sites. The median number of patients seen per week in the experimental sites ranged from 85 in Illinois to 100 in New York and Maine, and from 122 to 144 in the two comparison sites. Although a few providers' practices saw a very large number of

Table 3.1: Type of Practice for Providers in the Survey Sample by Carrier/Area

Type of Practice	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Solo practice	51%	56%	53%	36%	25%
Group practice	28	27	28	47	44
Medical equipment supplier	13	12	14	16	24
Hospital-based physician	2	1	3	1	1
Other	6	3	1	0	6
Total number	232	179	28	149	88

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Number of missing observations: two.

Table 3.2: Patients Seen Per Week for Providers in the Survey Sample by Carrier/Area

Number	Fixed Price Sites EDSF Illinois	 BSWNY New York	 BSM Maine	Comparison Sites WPS Wisconsin	 Mutual of Omaha Nebraska
Number of patients seen per week					
Minimum	4	7	3	0	1
First quartile (25%)	40	50	50	70	70
Median	85	100	100	122	140
Third quartile (75%)	175	180	160	388	300
Maximum	1425	8200	1500	8000	7000
Total number	220	179	27	142	88
Number of Medicare claims submitted per week					
Minimum	0	0	1	0	0
First quartile (25%)	2	2	10	5	2
Median	12	10	20	18	10
Third quartile (75%)	29	35	42	50	30
Maximum	1200	750	200	690	400
Total number	191	171	22	122	62

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

patients per week (up to 8,200 for large group practices), three-quarters of the practices in the experimental sites saw from 160 to 180 or fewer patients per week, and three-quarters of the practices in the comparison sites saw from 300 to 388 or fewer patients per week.

The distribution of Medicare claims submitted per week, also shown in Table 3.2, was roughly similar in the experimental and comparison sites. The median number of claims submitted directly to the carrier by the providers ranged from 10 in New York and Nebraska to 20 in Maine. Although the maximum number of claims submitted per week was quite large, three-quarters of the providers reported submitting less than 29 claims per week in Illinois to less than 50 per week in Wisconsin.

Most of the providers in the sample chose to have a member of their staff act as the respondent for the survey. Table 3.3 shows that from 3 to 20 percent of the providers acted as respondents themselves; the remainder delegated the responsibility. Providers were asked to supply an individual on their staff who was familiar with Medicare Part B claims processing to act as the respondent. Data on the backgrounds of those respondents who were staff members indicates that the great majority of them had extensive experience with both the provider and with Medicare claims processing. Table 3.3 shows that between 48 and 60 percent of the respondents who were staff members had six or more years of experience in working for the provider; only 6 to 12 percent had less than two years of experience with the provider.

Respondents also had extensive experience with Medicare Part B claims. From 44 to 63 percent of them had six or more years of experience in handling Part B claims; only 8 to 13 percent had less than two years of such experience. Overall, the respondents appear to have been well qualified to

Table 3.3: Characteristics of Survey Respondents by Carrier/Area

Characteristic	Percent Fixed Price Sites EDSF Illinois	BSWNY New York	BSM Maine	Percent Comparison Sites WPS Wisconsin	Mutual of Omaha Nebraska
Respondent					
Provider	13	20	7	3	9
Provider's staff	87	80	92	97	91
Total number	232	179	28	149	90
Years of Experience with Provider					
Less than 1 year	3	1	4	2	4
1-2 years	6	5	7	10	6
2-4 years	17	27	26	25	23
4-6 years	16	7	15	8	18
6 years or more	57	60	48	56	49
Total number	199	139	27	144	79
Years of Experience Handling Part B Claims[a]					
Less than 1 year	2	2	4	4	4
1-2 years	6	6	4	9	6
2-4 years	16	19	32	27	27
4-6 years	18	10	12	7	18
6 years or more	57	63	48	53	44
Total number	193	127	25	140	77

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Note: Rounding error associated with weighting may cause the total number of observations to be more or less than 677.

[a] Excludes respondents who are providers.

answer the survey questions in all five sites, having substantial experience both with the providers about whom they were supplying information and with Part B claims processing in general.

3.2 Satisfaction of Providers With Carrier Performance and the Medicare Program

Survey respondents were asked how satisfied they were, overall, with the performance of the current carrier in their area in processing claims for Part B of Medicare. Table 3.4 shows the responses given by respondents in the three sites served by fixed price carriers and the two comparison sites. Two major patterns are apparent in the table. First, providers in Illinois and New York seem less satisfied than providers in the other sites. Over 20 percent of respondents in Illinois and New York were somewhat or very dissatisfied, compared with 10 to 14 percent in the other sites. Second, providers in Maine were more satisfied than other providers; 90 percent were very or somewhat satisfied, compared with 61 to 79 percent in the other sites.

The second half of Table 3.4 shows results for satisfaction level converted to a numerical score ranging from +2 to -2. The mean satisfaction level based on this score is lowest for Illinois and highest for Maine. An analysis of variance of this satisfaction score shows that overall differences among the five sites are significant, that is, the variation in satisfaction among the five sites is greater than the variation within each site. However, the experimental sites (Illinois, New York, and Maine) as a group are not significantly different from the comparison sites as a group. This is not surprising, given the large differences within the experimental group in the satisfaction levels in Illinois and New York compared with those in Maine. Comparison of each of the experimental sites

Table 3.4: Providers' Overall Satisfaction with Carrier Performance by Carrier/Area

	Fixed Price Sites			Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Satisfaction with Carrier					
Very satisfied	28	29	42	24	34
Somewhat satisfied	33	35	48	55	42
Don't know	15	12	0	5	12
Somewhat dissatisfied	18	22	6	11	9
Very dissatisfied	5	2	4	3	3
Total number	229	179	28	148	90
Mean satisfaction level[a]	.61	.67	1.18	.93	.86

Analysis of Variance				
Source of Variance	df	MS	F	P
Sites	4	3.82	2.96	.0191
Contrasts[b]				
Experimental vs. comparison sites	1	0.55	0.43	.5120
Illinois vs. comparison sites	1	9.00	6.98	.0084
New York vs. comparison sites	1	5.02	3.89	.0489
Maine vs. comparison sites	1	2.03	1.57	.2103
Error	671	1.29		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Number of missing observations: four.

Notes: Rounding error associated with weighting may cause the total number of observations to be more or less than 677.

Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

[a] Computed as: 2, very satisfied; 1, somewhat satisfied; 0, don't know; -1, somewhat dissatisfied; and -2, very dissatisfied.

[b] Note that these contrasts are not orthogonal and thus do not account for the total sum of squares for sites.

individually to the comparison sites as a group shows that both Illinois and New York are significantly different from the comparison sites, but that Maine is not.

Fixed price contracting does not appear to have a consistent relationship to provider satisfaction in the experiment. Providers in Illinois and New York are less satisfied than other providers, but providers in Maine are not significantly different from providers in Nebraska and Wisconsin. Thus the evidence does not suggest that fixed price contracting consistently led carriers to reduce their levels of service, with resulting dissatisfaction among providers.

Changes Over the Past Year

Difficulties might be expected to be associated with the start-up of the fixed price contracts, especially for carriers who were taking over new territories. To address the issue of changes in carrier performance, respondents were asked to evaluate the change in the current carrier's performance over the past year, indicating whether performance had become better, worse, or had stayed the same. Table 3.5 shows responses to this question. The most striking pattern in the table is that respondents in all three experimental sites were much more likely to perceive the carrier's performance as having improved over the past year. A mean change score, ranging from +1 for better performance to -1 for worse performance, shows this difference. The mean for the fixed price sites ranges from .29 to .52, compared with .06 and .11 in the comparison sites. The analysis of variance indicates that these differences are significant. The three experimental sites as a group are significantly different from the comparison sites as a group, and each one of the experimental sites is individually different from

Table 3.5: Change in Carrier's Performance Over the Past Year by Carrier/Area

	Fixed Price Sites			Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Change in Performance					
Now better	55	32	44	22	14
About the same	42	64	52	66	78
Now worse	3	4	4	11	8
Total number	188	157	27	140	77
Mean change score[a]	.52	.29	.41	.11	.06

Analysis of Variance Source of Variance	df	MS	F	P
Sites	4	4.79	17.66	.0001
Contrasts[b]				
Experimental vs. comparison sites	1	9.90	36.49	.0001
Illinois vs. comparison sites	1	18.31	67.52	.0001
New York vs. comparison sites	1	3.39	12.51	.0004
Maine vs. comparison sites	1	2.65	9.78	.0018
Error	630	.27		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Missing observations: Excludes respondents who did not know whether they were satisfied or dissatisfied with carrier's performance.

Notes: Rounding error associated with weighting may cause the total number of observations to be more or less than 677.

Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

[a] Computed as: 1, now better; 0, about the same; and -1, now worse.

[b] Note that these contrasts are not orthogonal and thus do not account for the total sum of squares for sites.

the comparison group. Respondents are consistent in perceiving that the carriers under fixed price contracts have improved more over the past year than the comparison carriers.

It seems possible that providers in the experimental sites perceive more positive changes in performance because they have recently experienced a change in carrier; that is, new carriers are always perceived as improving their performance over the first few years. It is possible to address this issue to some extent using the data collected for the experiment. One of the experimental sites--western New York--is a combined area which includes the territory around Buffalo which had been served for many years by Blue Shield of Western New York (the current fixed price carrier), as well as the territories around Rochester and Utica which were served by other carriers prior to the experiment. Thus, some of the providers in the western New York area experienced a change in carrier when the fixed price contract was started and others did not. A similar distinction among providers is possible at one of the comparison sites; Wisconsin Physicians Services has only recently become the carrier for the Milwaukee area, although it previously served the remainder of Wisconsin. Thus, some providers in the Wisconsin comparison area have recently experienced a change in carrier and others have not.

Table 3.6 shows the mean change scores for providers in the experimental and comparison sites divided according to whether they recently experienced a change in carrier. Even after controlling for recent changes in carrier, change scores are higher for the experimental sites. The analysis of variance shows that within the providers that have changed carriers, there is a significant difference between the experimental and control sites (this is a comparison of the mean change scores for Illinois,

Table 3.6: Change in Carrier's Performance Over the Past Year by Change in Carrier by Carrier/Area

	Experienced a Change in Carrier				Did Not Experience a Change in Carrier		
	EDSF Illinois	BSWNY Rochester/ Utica	BSM Maine	WPS Milwaukee	BSWNY Buffalo	WPS Wisconsin	Mutual of Omaha Nebraska
Mean change score[a]	.52	.32	.41	.28	.18	.00	.07
Total number	188	118	27	57	39	83	76

Analysis of Variance

Source of Variance	df	MS	F	P
Sites	4	3.65	13.63	.0001
Contrasts[b]				
Change in carrier (IL, ROCH, ME, MIL) vs. no change (BUF, WI, NB)	1	8.78	33.79	.0001
Experimental change in carrier (IL, ROCH, ME) vs. comparison change in carrier (MIL)	1	1.13	4.22	.0404
Experimental—no change in carrier (BUF, WI) vs. comparison—no change in carrier (MIL, NB)	1	0.71	2.67	.1027
Error	628	.27		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Missing observations: Excludes respondents who did not know whether they were satisfied or dissatisfied with carrier's performance.

Notes: Rounding error associated with weighting may cause the total number of observations to be more or less than 677.

Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

[a] Computed as: 1, now better; 0, about the same; and -1, now worse.

[b] Note that these contrasts are not orthogonal and thus do not account for the total sum of squares for sites.

Rochester/Utica, and Maine with that for Milwaukee). However, within the group of providers who have not changed carriers, the mean change score is not significantly higher for the fixed price site than for the comparison sites (this is a comparison of Buffalo with Wisconsin, excluding Milwaukee and Nebraska). This analysis indicates that the greater perceived improvement in the performance of fixed price carriers over the past year is not simply a function of their having recently taken over their service areas.

Attitudes Toward Previous Versus Current Carriers

Respondents were asked to compare the efficiency of the current carrier in processing and paying claims to that of the previous carrier (if a change in carriers had occurred) or to that of the same carrier in the past (if a change in carrier had not occurred). Table 3.7 shows the responses to this question. Although the percentage distribution of responses seems to indicate that respondents in Illinois were more likely to feel that the previous carrier was more efficient than respondents in other sites, this difference is not statistically significant. While the variation among the sites was greater than the variation within sites and the overall F test for site differences is significant, contrasts of experimental sites individually and as a group versus comparison sites failed to show significant difference.

Further analysis of perceived changes in carrier efficiency separated respondents according to whether they had actually experienced a change in carrier. This analysis also failed to find significant differences among the experimental and comparison sites.

It seems somewhat puzzling that respondents in Illinois and New York, even though they were more dissatisfied with the current carrier than

Table 3.7: Perceived Efficiency of Current Carrier Compared with Carrier of Previous Period by Carrier/Area

	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Old Carrier Was					
More efficient	30	19	15	12	21
Less efficient	28	23	23	33	15
About the same	42	59	62	55	64
Total number	136	115	14	121	62
Mean change score[a]	.01	-.04	-.07	-.21	.06

Analysis of Variance

Source of Variance	df	MS	F	P
Sites	4	1.07	2.46	.0444
Error	630	.27		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Missing observations: Question was asked only of respondents whose experience included the prior carrier or the time period before the fixed price contracts were signed.

Notes: Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

[a] Computed as: 1, more efficient; 0, about the same; and -1, less efficient.

respondents in other sites, were not more likely to perceive that performance was worse under the current than the previous carrier. Responses to a question about providers' satisfaction with the previous carrier clarify this finding for Illinois. Table 3.8 shows that respondents in Illinois were more dissatisfied with their previous carrier than respondents in the comparison sites. Although providers in Illinois were dissatisfied with EDSF's performance, they had also been dissatisfied with the prior carrier's performance, so they did not perceive that an unfavorable change had taken place.

Attitudes Toward Medicare

If providers were unhappy with the performance of carriers under fixed price contracting, this might be expected to influence their overall attitudes toward the Medicare program. Conversely, providers with negative attitudes toward Medicare might be more critical of carrier performance and more inclined to be dissatisfied. Although the direction of the causality is not apparent, we would expect to find an association between dissatisfaction with carrier performance and negative attitudes toward Medicare. Both dissatisfaction with the carrier and a negative attitude toward Medicare among providers might be related to performance problems under fixed price contracting.

Survey respondents were asked a series of three questions about their experience with Medicare, compared to their private practice or business. The first question dealt with the time and effort required per client for Medicare versus private practice. The second question dealt with cash flow for Medicare versus private practice, and the third question concerned level of payment for services under Medicare versus private practice. Responses for these three questions are shown in Table 3.9.

Table 3.8: Satisfaction With Carrier of Previous Period by Carrier/Area

	Fixed Price Sites			Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Mean change score[a]	.48	1.06	.85	.63	.78
Total number	122	105	13	112	58

Analysis of Variance				
Source of Variance	df	MS	F	P
Sites	4	3.55	3.46	.0083
Contrasts[b]				
Experimental vs. comparison sites	1	.73	.71	.4002
Illinois vs. comparison sites	1	7.09	6.90	.0088
Error	668	1.03		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Missing observations: Question ws asked only of respondents whose experience included the prior carrier or the time period before the fixed price contracts were signed.

Notes: Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

[a] Computed as: 2, very satisfied; 1, somewhat satisfied; 0, don't know; -1, somewhat dissatisfied; and -2, very satisfied.

[b] Note that these contrasts are not orthogonal and thus do not account for the total sum of squares for sites.

Table 3.9: Experience With Medicare Compared with Private Practice by Carrier/Area

	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Time and Effort To Complete Forms and File Claims					
More per Medicare patient	37	41	48	41	43
Less per Medicare patient	9	6	9	12	10
About the same	53	53	43	47	46
Total number	205	166	26	145	88
Cash Flow and Promptness of Payment					
Better with Medicare	12	10	26	15	21
Worse with Medicare	27	51	23	24	28
No difference	62	38	51	61	51
Total number	198	165	26	143	85
Level of Payment for Services					
Better for Medicare	7	3	7	5	7
Worse for Medicare	47	57	53	53	41
About the Same	46	41	40	43	53
Total number	195	165	26	144	85

Analysis of Variance

Source of Variance: time and effort to complete forms[a]

	df	MS	F	P
Sites	4	.191	.50	.7374
Error	650	.383		

Source of Variance: cash flow and promptness of payment[a]

	df	MS	F	P
Sites	4	.191	.50	.7374
Contrasts				
Experimental vs. comparison sites	1			
New York vs. comparison sites	1	10.62	26.90	.0001
Error	642	.39		

Source of Variance: level of payment[a]

	df	MS	F	P
Sites	4	.767	2.28	.0594
Contrasts				
Experimental vs. comparison sites	1	.324	.96	.3266
New York vs. comparison sites	1	1.650	4.90	.0727
Error	637	.336		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Notes: Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

[a] Computed as: 1, Medicare better; 0, no difference; and -1, Medicare worse.

Roughly half of the respondents felt that Medicare patients required about the same time and effort as other patients. There were no significant differences among the sites in these responses; fixed price contracting for carrier services does not appear to have any impact on providers' perceptions of the time and effort required to deal with Medicare patients.

About half of the survey respondents felt that cash flow and promptness of receiving payments was about the same for their Medicare and private practices. There was one significant difference between the experimental sites and the comparison sites: respondents in New York were significantly more likely to say that cash flow was worse for their Medicare business than respondents in the comparison sites. Responses for providers in Illinois and Maine were not significantly different from those in the comparison sites for this question.

About half of the respondents felt that payment levels under Medicare were worse than payment levels in their private practice, with most other respondents feeling that payment levels were about the same for the two types of business. Few respondents felt that Medicare payment levels were better than private practice. There were no significant differences among sites in responses to this question.

Overall, the dissatisfaction which exists in Illinois with the performance of EDSF does not appear to have had an adverse effect on providers' feelings about how their Medicare practice compares with their private practice. The only difference in general attitude toward Medicare noted between the experimental sites and the comparison sites was a feeling that cash flow was a problem in New York.

Multivariate Analysis of Provider Satisfaction

To gain further insight into provider satisfaction in the fixed price territories, we estimated multivariate regressions to control for various provider characteristics. Our analysis looked at two measures of carrier satisfaction. The first was a scale (HSAT) based upon responses to the question, "Overall, how satisfied are you with (the carrier's) performance in processing claims for Part B of Medicare?" Answers ranged along a five point scale from "very satisfied" (+.6) to "very dissatisfied" (-.6), with "don't know" treated as a neutral response (with a value of 0). The scale HSAT was thus a summative measure of provider satisfaction.

Our second measure was a scale (HYEAR) based upon responses to the question, "Compared with a year ago has (the current carrier) become better, remained about the same, or become worse in operating the program?" HYEAR was scaled from +.8 (become better) to -.8 (become worse) with 0 (about the same, or don't know) for a neutral response.

Our analysis considered how a provider's level of satisfaction correlated with (1) the carrier, (2) type of practice (solo, group, etc.), (3) general attitudes toward Medicare, (4) incidence and type of payment errors, (5) years of experience of the provider's clerical staff in dealing with Medicare, (6) size of practice, and (7) percent of practice volume involved in Medicare. Specific measures of these concepts are defined below. The basic hypotheses treated by our analysis can be summarized as follows.

> Hypothesis 1: providers are less satisfied with fixed price carriers. This hypothesis was rejected. However, providers in Illinois were found to be less satisfied with their carrier.
>
> Hypothesis 2: providers who experience a change in carriers are less satisfied, regardless of whether or not a fixed price carrier

is involved. This hypothesis was rejected. Providers with new carriers were not different in their attitudes from control sites.

Hypothesis 3: providers who have unfavorable views of the Medicare program will also be less satisfied with their carrier. This hypothesis was confirmed.

Hypothesis 4: different types of providers have different degrees of satisfaction. Specifically, hospital-based physicians and nonphysician providers were expected to be less satisfied with a carrier because payment rules for their services are more complicated than for mainstream physician services.[1] This hypothesis was confirmed only for group practices which were found to be less satisfied than other providers.

Hypothesis 5: a provider will have a more favorable view of a carrier as the carrier makes fewer errors in payment for that provider. Providers will also be more satisfied as errors are more often made in their favor. This hypothesis was confirmed.

Hypothesis 6: providers with staff that are more experienced in dealing with Medicare will have a more favorable view of a carrier. This hypothesis maintains implicitly that dissatisfaction with a carrier is a reflection of clerical ignorance or inexperience with Medicare. This hypothesis was not confirmed.

Hypothesis 7: providers with large Medicare practices will be more satisfied with a carrier. The rationale for this hypothesis is that large providers are more likely to develop more efficient processing procedures (e.g., tape-to-tape billing) with a carrier. This hypothesis was confirmed.

Hypothesis 8: compared to "last year," fixed price carriers will improve their performance no more than other carriers. This hypothesis was rejected. All fixed price carriers were viewed as having improved.

Hypothesis 9: compared to "last year," providers in territories with new carriers will perceive improved performance. This hypothesis was confirmed.

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[1] In our case studies, we noted that nonphysician services are often manually priced and processed by carriers because payment eligibility is often dependent upon special considerations. For example, an ambulance ride is usually payable as a Part B benefit only where hospitalization is also involved.

All of these hypotheses, of course, assume that all other factors are held constant. That is, the so-called "ceteris paribus" assumption is invoked. Our use of a form of regression analysis to test these hypotheses takes into account this basic assumption.

To test these hypotheses, the following independent variables were constructed from the survey data.

Type of Practice Variables[1]

GROUP	dummy variable equals one if provider is a physician in a group practice, zero otherwise
MEQPT	dummy variable equals 1 if provider is a medical equipment supplier, zero otherwise
HBP	dummy variable equals 1 if provider is a hospital-based physician, zero otherwise
OTHPROV	dummy variable equals 1 if provider offers any other nonphysician service, zero otherwise

Type of Carrier[2]

BUFF	dummy variable equals 1 if provider serves the Buffalo, NY area, zero otherwise
ROCHUTCA	dummy variable equals 1 if provider serves in the Rochester or Utica, NY areas, zero otherwise
ILL	dummy variable equals 1 if provider serves Illinois, zero otherwise
ME	dummy variable equals 1 if provider serves the state of Maine, zero otherwise
MIL	dummy variable equals 1 if provider serves the Milwaukee, WI area, zero otherwise
WI	dummy variable equals 1 if provider serves the Wisconsin area exclusive of Milwaukee, zero otherwise
NEWCAR	dummy variable equals one if provider serves a territory where carrier changed, zero otherwise. NEWCAR is a composite for MIL, WI, ROCHUTCA as defined above.

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[1] Solo physicians are included in the intercept term of the regression.

[2] Mutual of Omaha is included in the intercept term of the regression.

FPDUM	dummy variable equals one if provider serves a territory operating under a fixed price contract, zero otherwise. FPDUM is a composite for ILL, BUFF, ROCHUTCA, and ME.

Provider Characteristics

STIME	a scaled variable responding to question, "Considering only the time and effort in completing forms ... does it take more time and effort per Medicare patient ...?" STIME respectively equals -1, 0, +1 for responses "more time," "about the same time/don't know," and "less time."
CFLOW	a scaled variable responding to question, "Thinking about your cash flow and promptness of receiving payments ... does Medicare ... provide a better cash flow situation ...?" CFLOW respectively equals +1, 0, -1 for responses "better cash flow with Medicare...," "no difference/don't know," and "cash flow more of a problem with Medicare."
PAYMENT	scaled variable responding to question, "Compared with your private practice, is the level of payment for services better in your Medicare practice ... worse ... about the same ...?" PAYMENT respectively equals +1, 0, -1 for responses "better," "about the same/don't know," and "worse."
BWORK	number of years of experience that respondent has in processing Medicare Part B claims. Scale ranges from 0 to 6+ years.
DETECT	dummy variable equals one if provider answered yes to question, "Have you detected any errors in Medicare Part B payments in the last two years...," zero otherwise
OVUN	ratio of number of times overpayments were encountered to number of underpayments
PCTB	ratio of Part B claims taken on assignment to total patients seen by practice in one week
PATIENTS	total patients seen per week by provider (including non-Medicare)[1]

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[1] The variables PCTB and PATIENTS were each transformed to the hyperbolic tangent of the difference from their means. The hyperbolic tangent is defined mathematically as $\text{TANH } u = e^{u}-e^{-u}/e^{u}+e^{-u}$. That is, variables were transformed to X* defined as: $X^* = \text{TANH}(\overline{X}-X_i)$. This transformation takes account of the fact that the dependent variables HSAT and HYEAR are restricted to fall within ranges between -1 and +1 as defined above. The restricted range of these dependent variables could cause a bias in a linear ordinary least squares regression when continuous variables are used on the right hand side of the equation. For example, providers who respectively see 100 and 1,000 patients per week might each give a response that they were "very satisfied." Fitting a simple linear regression line when the dependent variable has such a restricted range and when the independent variable has such a wide range could result in a poor estimate of the regression line. The TANH transformation allowed us to fit a curved regression that asymptotically approaches the limiting values of +1 and -1.

Results

Table 3.10 presents ordinary least squares regressions of HSAT and HYEAR on the explanatory variables.[1] Equation 1 regresses HSAT on a set of dummy variables representing distinct regions in the experimental and control sites. Mutual of Omaha is included in the intercept term as the basis for comparison. The equation allows us to distinguish both regions served by fixed price carriers (ILL, BUFF, ROCHUTCA, ME) and regions which experienced changes in carriers (MIL, ILL, ROCHUTCA, ME). Equation 1 shows that only in Illinois (ILL) were providers dissatisfied with the carrier's performance at a level that is statistically significant (t = 2.04). Providers in the other fixed price areas of Maine (ME) and upstate New York (ROCHUTCA, BUFF) had levels of satisfaction which were not significantly different from the control sites.

In Equation 2, regions have been aggregated so that all providers in regions with fixed price carriers are represented by FPDUM and all providers in regions which experienced a change in carriers are represented

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[1] We have used ordinary least squares (OLS) on the grounds that the dependent variables HSAT and HYEAR approximate continuous variables for the degree of satisfaction experienced by the respondent. Under this interpretation, OLS is the best linear unbiased estimator. We attach no particular importance to the fact that predicted values of the regression may be at points ("very very satisfied") beyond the range of the allowed responses. An alternative approach to data analysis would have been to view each response as a "discrete choice" where some responses ("satisfied") are near substitutes for others ("very satisfied"). Under this viewpoint, conditional probit would be the preferred method of data analysis (see Hausman and Wise, 1978, for a discussion of the method). We have not used conditional probit in our analysis partly because of its computational burden. So far as we know, software for the technique has never been extended to allow for the number of choices (5) which we consider. A more substantive reason for not using conditional probit, however, is that the technique does not allow for continuous substitution possibilities as a response varies from a close substitute ("very satisfied" versus "satisfied") to a more distant substitute ("dissatisfied"). Applications of conditional probit to date have dealt with problems where there is little or no scaling in the dependent variable. Conditional probit, for example, is able to analyze situations where a consumer decides whether to purchase oranges, apples, or bananas. It can also deal with close substitutes such as orange versus tangerines. It has not, however, been widely used to analyze responses which fall along a continuous scale. In this sense, conditional probit fails to exploit all of the available statistical information and OLS may be a superior estimator.

Table 3.10: Regressions of Provider Satisfaction (t statistics in parentheses)

Independent Variables	HSAT (1) Parameter Estimate	HSAT (2) Parameter Estimate	HYEAR (3) Parameter Estimate	HYEAR (4) Parameter Estimate
	Dependent Variable			
INTERCEPT	0.44 (7.11)	0.41 (7.66)	−0.03 (−0.35)	−0.09 (−1.27)
GROUP Group practice	−0.06 (−1.76)	−0.06 (−1.74)	−0.11 (−2.31)	−0.10 (−2.10)
MEQPT Medical equipment supplier	0.03 (0.53)	0.02 (0.40)	0.02 (0.27)	0.02 (0.39)
HBP Hospital-based physician	−0.16 (−1.42)	−0.17 (−1.45)	−0.06 (−0.40)	−0.006 (−0.04)
OTHPROV Nonphysician service	−0.04 (−0.50)	−0.05 (−0.54)	−0.05 (−0.49)	−0.05 (−0.41)
MIL Milwaukee, WI dummy	−0.04 (−0.60)	— —	0.17 (2.18)	— —
ILL Illinois dummy	−0.10 (−2.04)	— —	0.33 (5.14)	— —
ROCHUTCA Rochester-Utica, NY dummy	−0.02 (−0.29)	— —	0.15) (2.05)	— —
ME Maine dummy	0.02 (0.31)	— —	0.31 (3.06)	— —
WIS Wisconsin dummy	−0.08 (−1.44)	— —	−0.11 (−1.49)	— —
BUFF Buffalo, NY dummy	0.05 (0.63)	— —	0.07 (0.71)	— —
NEWCAR New carrier	— —	−0.04 (−1.00)	— —	0.22 (4.14)
FPDUM Fixed price contract	— —	0.01 (0.34)	— —	0.11 (2.09)
STIME Time	0.10 (4.25)	0.11 (4.35)	0.02 (0.61)	0.02 (0.59)
SCFLOW Cash flow	0.10 (4.03)	0.09 (3.88)	0.14 (4.39)	0.16 (4.95)
SPAYMENT Payment services	0.07 (2.79)	0.06 (2.59)	0.04 (1.29)	0.05 (1.39)
BWORK Years experience	0.005 (0.63)	0.003 (0.45)	0.04 (3.79)	0.04 (3.88)
OVUN Ratio of overpayments to underpayments	0.06 (1.68)	0.06 (1.86)	0.03 (0.58)	0.01 (0.27)
DETECT Detection of errors	−0.01 (−0.42)	0.001 (0.05)	0.06 (1.34)	0.04 (0.92)
PCTB Ratio of claims to patient	0.04 (2.44)	0.04 (2.69)	−0.007 (−0.35)	−0.007 (−0.36)
PATIENTS Total number patients seen	0.05 (2.54)	0.05 (2.51)	0.02 (0.92)	0.02 (0.72)
R^2 statistic	.16	.15	22	.19
F statistic	5.21	5.92	7.28	8.25
Number of observations	495	495	495	495

by NEWCAR. Since neither of these variables is statistically significant, we conclude that neither fixed price carriers nor change in carriers is an important factor explaining the current satisfaction of providers with a carrier.

Equations 1 and 2 also test to see if providers from a particular type of practice have significantly different levels of satisfaction. In the regression, solo practitioners are included in the intercept term as the standard of comparison. We find that providers in group practices (GROUP) are significantly less satisfied with carrier performance. This is shown by the negative sign on the GROUP variable which is highly significant. The negative sign on the dummy for hospital-based physicians (HBP) suggests that these providers are also less satisfied than solo practitioners but this result does not have a sufficiently high level of statistical significance.

Our finding suggests that group practices and HBPs may experience more problems in dealing with carriers than do other types of providers. Somewhat to our surprise, we found no statistically significant evidence that medical equipment suppliers (MEQPT) or other providers (OTHPROV) had levels of satisfaction different from solo practitioners.

Our equations were designed to control for differences in satisfaction that might be due to a provider's general views about the Medicare program or the size and composition of his practice. Each of the variables measuring these factors was highly significant and each had the sign we had expected. The positive signs on the variables STIME, SCFLOW, and SPAYMENT respectively indicate that providers had greater satisfaction with the carrier when they held favorable views about the Medicare program in terms of its paperwork burden, speed of payment, and level of payment relative to private practice. We should note that the majority of providers had unfavorable views about Medicare's level of payment, but favorable views about its speed of payment. Views about the level of the paperwork burden were mixed. Simple correlations of these variables with HSAT ranged between .24 and .34, suggesting that general attitudes toward Medicare are not in themselves the dominant explanation for the providers' satisfaction with the carrier.

The years of experience of the provider's clerical staff in processing Part B claims (BWORK) had no significant relationship with the provider's overall level of satisfaction.

Providers with larger practices or with larger portions of their practice in Part B work tended to be more satisfied. This is shown by the positive signs and significant coefficients for the variables PATIENTS and PCTB.

Providers' views about a carrier's errors in making payments had some influence on overall satisfaction. The variable DETECT is statistically insignificant (but has the expected negative sign) in Equations 1 and 2. This indicates that providers who could recall payment errors do not differ significantly in their attitudes from those who could not recall any errors. Another result is the positive and statistically significant sign on the variable OVUN. This indicates that providers had more favorable attitudes toward the carrier when the ratio of overpayments to underpayments increased. It is also interesting to note that providers could recollect about four times more instances of underpayment than overpayment.

Providers' views about how much the carrier has improved performance in the last year (HYEAR) are analyzed in Equations 3 and 4.

Providers in Illinois, Milwaukee, Rochester-Utica, and Maine all felt that the carrier had improved its performance over the previous year. This is shown by the positive sign on the variables ILL, MIL, ROCHUTCA, and ME. All results are highly significant statistically. It is interesting that providers noted improvements in performance only in those regions where carriers had changed. No significant changes were reported by the control regions where carriers had not recently changed. This finding also appears in Equation 4. Providers who had new carriers (NEWCAR) and providers with fixed price carriers (FPDUM) had more favorable, statistically significant attitudes about improvements in carrier performance.

Providers in group practices had significantly less favorable views about changes in carrier performance during the last year. All other types of providers were indistinguishable in their views from solo practitioners.

General attitudes toward Medicare were somewhat less important in Equations 3 and 4. Views about the overall burden of Medicare paperwork (STIME) and the level of payment (SPAYMENT) had no significant influence. Favorable views about Medicare's speed of payment (SCFLOW) were significantly and positively correlated with views about improvements in performance.

Providers with more experienced clerical staffs (BWORK) had significantly more favorable views of improvements in carrier performance.

No significant effects on attitudes about improvement were found for variables measuring the provider's number of patients (PATIENTS), percent of practice absorbed by Part B (PCTB), the detection of payment errors (DETECT), or the ratio of overpayments to underpayments.

3.3 Disruptions and Hardships Experienced by Medicare Providers

If fixed price contracting had a negative effect on carrier performance, this might be expected to have two major adverse impacts on medical service providers. First, they might experience delays in receiving reimbursement from the carrier, with resulting financial management and cash flow difficulties. Second, they might experience more incorrect payments due to processing errors. Also, the transition process in which the fixed price carriers took over new territories might have had some adverse consequences for providers. For example, procedure codes were altered when territories were merged, and this may have caused initial difficulties in filing claims.

Overall, carrier performance in the areas included in the study was somewhat better at the time the survey was conducted than it had been before the beginning of the fixed price experiments. Table 3.11 shows the mean processing time (in days) for the areas involved in the study for fiscal year 1976 (before the fixed price contracts) and for fiscal year 1981 (a year

Table 3.11: Mean Processing Time and Payment Deductible Error Rates by Area

	Illinois[a]	New York[a]	Maine	Wisconsin[a]	Nebraska
Mean Processing Time (days)					
FY1976	14.6	21.1	13.7	14.5	16.4
FY1981	12.6	12.2	10.0	16.5	7.0
Payment Deductible Error Rate					
FY1976	3.8	3.5	1.5	1.6	1.4
FY1981	2.8	1.1	2.0	1.3	1.3

Source: HCFA/BPO Quarterly Part B Processing Time Report, various issues and unpublished data.

[a] Weighted average for all carriers serving territory.

prior to the survey). For all territories except Wisconsin, the mean processing time had declined by 2 to 10 days over this time period. A similar trend is apparent in the payment deductible error rate, also shown in Table 3.10. For all territories except Maine, this rate fell over the period 1976 to 1981. Thus, although the fixed price contracts may have had some adverse consequences when they were first initiated, objective measures of carrier performance indicate an overall positive trend for the sites being studied.

Payment Delays

For the most part, subjective evidence from the survey of providers supports the conclusion that the fixed price contracts were not resulting in substantial payment delays at the time the survey was conducted. Tables 3.12 and 3.13 indicate that very few providers in any of the five sites studied were experiencing substantial delays in receiving payment for their Medicare claims, and that there was little difference in payment delays between the fixed price and cost reimbursement carriers. Table 3.12 shows the average percentage of claims paid within 30 days and the average percentage of claims outstanding for over 60 days at each site. It appears that claims are being paid slightly faster in the experimental sites (the percentage of claims paid within 30 days is larger). The analysis of variance confirms this impression, showing a significant difference between the experimental sites as a group and the comparison sites as a group. The percentage of claims outstanding over 60 days is quite small (4 to 10 percent) at all sites and the analysis of variance indicates that there are no significant differences among the sites.

Table 3.13 shows the average amount of unpaid claims that had been outstanding for over 30 days at each site. The amounts appear fairly

Table 3.12: Respondents' Estimation of Payment Delays by Carrier/Area

	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Average Percentage of Claims Paid Within 30 Days	60	59	77	54	55
Total Number	162	108	27	113	87

Analysis of Variance

Source of Variance	df	MS	F	P
Sites	4	3248	2.64	.0332
Contrast				
Experimental vs. comparison sites				
Error	556	1231		

	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Average Percentage of Claims Not Paid Within 60 Days	9	6	4	6	10
Total Number	166	122	27	120	58

Analysis of Variance

Source of Variance	df	MS	F	P
Sites	4	54380	0.50	.7329
Error	558	107905		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Notes: Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

Table 3.13: Average Total Amount of Money Owed by the Carrier for Over 30 Days by Carrier/Area

	Fixed Price Sites			Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Average Total Amount of Money Owed by Carrier Over 30 Days	$4721	$2797	$2838	$2310	$1703
Total Number	59	48	11	49	23

Analysis of Variance Source of Variance	df	MS	F	P
Sites	4	53,905,302	0.80	.5280
Error	221	67,656,269		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Notes: Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

similar across sites and the analysis of variance confirms that there are no statistically significant differences among sites.

Respondents who reported that they had been owed $10,000 or more for over 30 days were asked about how the delay in payment affected their practice. The number of respondents reporting a payment delay of this magnitude was quite small (13). Among these cases, 6 indicated that they responded to the problem by raising fees, and 4 responded that they took out short-term loans. One postponed paying salaries, and 2 responded in other ways. Even when a weighting scheme is used which inflates the survey responses to be representative of all providers nationwide, the estimate of the total number of providers experiencing a delay of this magnitude is only 957, for the five survey areas.

Providers were given a list of possible reasons for payment delays and were asked which reasons for delay they encountered frequently. Two of these reasons concerned the carrier's performance: delays due to clerical errors by the carrier and delays due to poor carrier performance in general. Table 3.14 shows the percentage of respondents indicating that these reasons for delay were frequently encountered. Overall, from 15 to 25 percent of the respondents in the experimental sites felt that carrier clerical error was an important source of delay, compared with 7 and 12 percent in the comparison sites. The analysis of variance indicates that differences among the sites, and the contrast of the experimental and comparison sites as a group, are statistically significant. The major source of the difference is the New York site, which was significantly different from the comparison sites.

The percentage of providers who felt that generally poor performance on the carrier's part was an important source of delays was about

Table 3.14: Perceived Reasons for Payment Delays by Carrier/Area

	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Delays Due to Clerical Errors by Carrier					
Yes	18	25	15	7	12
No	82	75	85	93	88
Total Number	173	127	26	122	61

Analysis of Variance Source of Variance	df	MS	F	P
Sites	4	.581	5.09	.0005
Contrasts				
Experimental vs. comparison sites	1	.806	7.06	.0081
New York vs. comparison sites	1	1.818	15.93	.0001
Error	585	.114		

	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Delays Due to Poor Carrier Performance In General					
Yes	17	10	8	8	11
No	83	90	92	92	89
Total Number	173	127	26	123	61

Analysis of Variance Source of Variance	df	MS	F	P
Sites	4	.185	2.02	.0896
Contrasts				
Illinois vs. comparison sites	1	.474	5.20	.0230
Error	585	.091		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Notes: Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

the same in all sites except Illinois, where it was higher. The analysis of variance shows that while overall differences among the sites were not significant, the Illinois site was significantly different from the comparison sites.

These results indicate that providers in New York and Illinois were more likely to feel that payment delays were the fault of the carrier. However, in interpreting this finding, it should be kept in mind that the survey evidence suggests that the experimental sites were actually experiencing faster payment of claims than the comparison sites at the time the survey was conducted. The negative feelings about carrier performance among providers in Illinois and New York must either reflect earlier problems with the carriers' performance or must be based on some negative aspects of performance which are not being measured by the survey.

Detection of Errors

The majority of providers responding to the survey indicated that they had not detected any errors in their Medicare Part B payments over the past two years. Table 3.15 shows that from 61 to 77 percent of the survey respondents said that they had not experienced any payment errors in their assigned cases. The major difference among the sites is for Illinois contrasted with the comparison sites. Respondents in Illinois were significantly less likely to say that they had experienced payment errors than respondents at the comparison sites.

Respondents who reported detecting errors were asked how many of the errors had resulted in underpayments and how many in overpayments. Table 3.16 shows these results. At all sites, providers were much more likely to say that they had experienced underpayments than overpayments. There were

Table 3.15: Providers' Detection of Errors in Medicare Part B Payments in the Past Two Years by Carrier/Area (assigned cases only)

	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Provider Has Detected Errors					
Yes	23	39	37	35	29
No	77	61	63	65	71
Total Number	198	170	27	144	73

Analysis of Variance	df	MS	F	P
Source of Variance				
Sites	4	.656	3.20	.0129
Contrasts				
Illinois vs. comparison sites	1	.782	3.81	.0513
Error	632	.205		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Notes: Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

Table 3.16: Frequency of Under- and Overpayments Caused by Payment Errors by Carrier/Area

	Fixed Price Sites			Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Mean Number of Underpayments	14.9	10.6	12.9	11.4	9.6
Total Number	34	52	9	37	18

Analysis of Variance Source of Variance	df	MS	F	P
Sites	4	.620	1.35	.2534
Error	232	460.5		

	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Mean Number of Overpayments	2.4	1.6	2.0	2.3	3.2
Total Number	39	62	10	39	19

Analysis of Variance Source of Variance	df	MS	F	P
Sites	4	63.45	0.70	.5944
Error	242	90.97		

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Notes: Sample sizes reported for the percentage distributions are based on weighted data, with some observations being counted more or less than others. The total number of degrees of freedom for the ANOVA is based on the total number of observations and may differ.

no significant differences among the sites in the frequency of either underpayments or overpayments.

Disruptions Caused By Changes in Procedure Codes

The start-up period for the fixed price contracts involved a change in carrier for providers in all areas except those in Buffalo, who were already being served by Blue Shield of Western New York. One of the consequences of carriers taking over new territories was that providers were usually asked to alter the procedure codes they used in submitting claims to be consistent with the codes used by the new carrier. This is potentially a disruptive experience for providers, and the provider survey asked respondents in Illinois, New York (excluding Buffalo), Maine, and Milwaukee (where the carrier had changed) about any problems associated with changes in procedure codes.

Overall, changes in procedure codes do not appear to have caused major disruptions for the providers in the sample. Table 3.17 shows that the procedure codes had changed. Although procedure codes in Maine changed only minimally, there were significant changes in codes for the other territories experiencing a change in carrier. However, 86 percent of respondents in Milwaukee, 63 percent in Illinois, and 58 percent in Rochester/Utica reported that they did not remember such a change having occurred.

Among providers who remembered that a change had occurred, about half indicated that the change had been troublesome. Combining the responses to these two questions, roughly 80 percent of the respondents in each of the four areas experiencing a change in carrier either did not remember a change in procedure codes or felt that the change had caused no problems. The small number of providers reporting problems were asked how long it took before

Table 3.17: Disruptions Associated With Changes in Procedure Codes by Carrier/Area

	Percent Fixed Price Sites			Percent Comparison Sites
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin
Did Carrier Change Procedure Codes?				
Yes	37	42	28	32
No	63	58	72	68
Total Number	158	95	18	44
If Changes Occurred, Did These Changes Cause Any Difficulties?				
Yes	50	54	40	43
No	50	46	40	57
Total Number	58	39	5	14
If There Were Difficulties, How Long Did It Take Before Things Were Running Smoothly With The New Codes?				
Less than 3 months	28	42	-	83
3-6 months	48	0	-	17
Over 6 months	45	58	-	0
Total Number	29	19	1	6

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

their business or practice was running smoothly again. In Milwaukee, most respondents reported operating smoothly again less than three months after the change occurred. In Illinois and Rochester/Utica, the problems took longer to resolve, with 45 to 58 percent of the providers experiencing problems and reporting that their business was still disrupted six months after the change in codes. Overall, only a small number of providers reported that the change in procedure codes was disruptive, but those providers in Illinois and New York who did experience problems seem to have needed quite a long period to resolve them.

Use of the Toll-Free Telephone Assistance

All of the carriers in the study maintained toll-free telephone numbers for providers to call when they had problems or questions. On the provider survey, respondents were asked how frequently they used this form of assistance and how important it was to them. Table 3.18 shows that roughly 50 to 60 percent of the respondents in areas other than Maine reported having used the toll-free number at least once; in Maine, usage was much higher, with 85 percent of respondents having used the number at least once. Average usage of the number was fairly low; respondents using the number reported making an average of 2 to 3 calls per month, except in Nebraska where the average was 4.5. Even though usage of the number was not high, most providers felt that such a service was important; less than 20 percent of respondents in any site felt that the provision of such a service was not important, and from 63 to 82 percent felt that it was very important. Respondents appear to value the opportunity to make toll-free inquiries, even though they do not avail themselves of it very often. There do not appear to be differences in the usage of the toll-free assistance numbers between the experimental and

Table 3.18: Use of Toll-Free Telephone Numbers for Assistance by Carrier/Area

	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Has Provider Ever Used the Toll-Free Number					
Yes	48	61	85	60	50
No	52	39	15	40	50
Total Number	231	179	27	149	88
Mean Number of Times Used in an Average Month	2.1	2.2	2.6	2.7	4.5
Total Number	108	108	22	88	43
Importance of the Service					
Very important	68	82	82	79	63
Somewhat important	24	11	15	14	19
Not important	8	8	2	7	18
Total Number	210	169	28	148	85

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

comparison sites which would indicate a greater need to make inquiries for the fixed price carriers.

3.4 Acceptance of Assignment

Providers of medical services have a choice as to whether or not they will accept assignment for a Medicare Part B case. The frequency with which physicians and other health care providers are willing to accept assignment is important to beneficiaries because the beneficiary is liable for a potentially higher fee for nonassigned claims. If performance problems under fixed price contracting cause providers to be less willing to accept assignment for claims, then this will have a negative impact on Medicare beneficiaries. For this reason, the provider survey asked a series of questions about providers' policies regarding assignment and whether they had changed in the past several years.

The frequency with which providers accept assignment varies substantially by geographic region, even without any influence from carrier performance. Table 3.19 shows the assignment rate for the territories included in the study for fiscal years 1976 (before the start of the fixed price experiments) and 1981. The assignment rate has decreased slightly in all sites, but the sites vary substantially in both their 1976 and 1981 rates. Maine has the higher assignment rate--80 percent in 1981--and Nebraska has the lowest--37 percent in 1981.

Table 3.19: Assignment Rates by Area

Assignment Rate	Illinois[a]	New York[a]	Maine	Wisconsin[a]	Nebraska
FY1976	52	62	74	47	41
FY1981	50	60	80	41	37

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[a] Weighted average for all carriers serving territory.

The assignment policies reported by providers in the study, shown in Table 3.20, appear to reflect these regional differences. Providers in Maine were most likely to indicate that they accepted assignment for all procedures and patients (44 percent); only 8 percent of respondents in Maine said they rarely or never accepted assignment. Nebraska, as might be expected, had the highest percentage of respondents who said that they never accepted assignment (34 percent). Providers in New York and Illinois were somewhat less likely to accept assignment than providers in Wisconsin according to the survey responses; this result does not agree with overall assignment rates which are higher in New York and Illinois than in Wisconsin.

If providers in the sites served by fixed price carriers are reluctant to accept assignment because of payment delays or other difficulties associated with carrier performance, then this effect should be shown by a change in assignment policy since the beginning of the fixed price contracts. Table 3.21 shows the percentage of providers who indicated that they had changed their assignment policy over the 12 month period preceding the survey. The table shows that very few providers had changed their policy in any site, and there is no indication that changes were more frequent in the experimental than the comparison sites.

The small number of providers who had changed their assignment policies were asked whether they now accepted assignment more or less often than previously. These responses, also shown in Table 3.21, show no clear pattern across sites and no consistent difference between experimental and comparison sites. There consequently does not appear to be any substantial change in the willingness of providers to accept assignment in the areas served by the fixed price carriers.

Table 3.20: Assignment Policies by Carrier/Area

Assignment Policy	Percent Fixed Price Sites EDSF Illinois	 BSWNY New York	 BSM Maine	Percent Comparison Sites WPS Wisconsin	 Mutual of Omaha Nebraska
Accept for All Procedures and Patients	23	30	44	23	20
Accept for Some Procedures and Patients	39	35	49	62	35
Usually Do Not Accept	10	9	2	6	11
Never Accept	28	26	6	9	34
Total Number	210	164	26	138	84

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

Table 3.21: Change in Assignment Policies by Carrier/Area

	Percent Fixed Price Sites			Percent Comparison Sites	
	EDSF Illinois	BSWNY New York	BSM Maine	WPS Wisconsin	Mutual of Omaha Nebraska
Has Assignment Policy Changed Within Past 12 Months					
Yes	4	6	12	8	2
No	96	94	88	92	98
Total Number	232	179	27	148	89
If Policy Has Changed, Do You Accept Assignment More or Less Often					
More	77	8	13	59	0
Less	23	85	83	41	100
Same	0	8	4	0	0
Total Number	9	10	3	12	2

Source: Provider survey.

Sample: Sample has been weighted to be representative of the provider population in the three experimental sites (combined) and in the two comparison sites (combined).

3.5 Summary

Two different and rather contradictory views about the performance of the fixed price and cost reimbursed carriers emerge out of the responses to the provider survey. On one hand, measures of carrier performance as perceived by the providers show either little or no difference between the experimental and comparison sites, or better performance among the fixed price carriers. There were few substantial payment delays reported at any site, and the percentage of claims paid within 30 days was significantly higher for the fixed price than for the comparison sites. The only significant differences among sites in the detection of payment errors was that providers in Illinois were somewhat less likely to report experiencing a payment error over the past year than providers in the comparison sites.

On the other hand, there does appear to be greater general dissatisfaction with fixed price carrier performance for providers in New York and Illinois, contrasted with the comparison group. Providers in Illinois were significantly less satisfied with the overall performance of their carrier and providers in New York were more likely to say that they experienced a cash flow problem for their Medicare patients. Providers in Illinois were more likely to attribute payment delays to poor performance on the part of the carrier, and providers in New York to attribute delays to the carrier's clerical errors. This is in contrast to the evidence which suggests that providers in Illinois and New York were actually experiencing an equal or somewhat better level of service from their carriers than providers in the comparison sites at the time the survey was conducted.

The explanation for this apparent contradiction may lie in improvements in carrier performance since the start-up of the fixed price contracts.

Respondents at all of the experimental sites were more likely to say that their carrier's performance had improved over the past year. Although relatively few providers remembered that the change in procedure codes at the beginning of the fixed price contracts had been troublesome, those that did report having had problems in Illinois and New York indicated that these problems often disrupted their businesses for six months or more. Providers in New York and Illinois may be reporting a level of dissatisfaction and distrust that is based on their experiences of several years ago rather than on the carriers' current performance.

Although assignment rates varied across the sites in the study, there is no evidence that the fixed price contracts had any impact on providers' willingness to accept assignment. There is also little variation across sites in the providers' overall attitudes about Medicare Part B and how it compared to their private practices. Providers generally felt that the level of effort required for Medicare cases was about the same or somewhat higher than for their private patients, that cash flow was about the same (with the exception of New York) and that payment levels were lower for Medicare patients.

4.0 EFFECTS ON FIXED PRICE MEDICARE BENEFICIARIES

4.1 Introduction

No evaluation of the Medicare Part B fixed price contracting experiments would be complete without determining its effects, if any, on the program's beneficiaries. This chapter presents the results of a telephone survey conducted with Medicare beneficiaries in the three experimental sites (Maine, upstate New York, and Illinois) and three matched comparison sites (Nebraska, Wisconsin, and southern California).

Basic findings of the survey are that few beneficiaries reported experiencing financial hardship due to delays in claim payment. Instances of reported hardships were no more prevalent in fixed price territories than in control sites. A large majority of beneficiaries in each area reported satisfaction with carrier services. Only a small percentage of the reported dissatisfaction or financial hardship of beneficiaries could be explained by characteristics such as number of submitted claims, assignment behavior, etc. However, beneficiaries who were most satisfied with Medicare did tend to be those who had fewer claims to file and other insurance coverage. Roughly 10 percent of beneficiaries felt that toll-free telephone service is very important. Slightly less than one-third of beneficiaries felt that their Medicare claims were paid quickly. About 10 percent of beneficiaries noted some trouble in filling out the Medicare claim form.

4.2 Purpose

HCFA gathers a considerable amount of information on the performance and operations of its Medicare carriers, and many of these measures can provide insight into the likely effects on the program's beneficiaries and providers. For instance, measures such as "average processing time" of a claim by the carrier, the percentage of claims pending over 30 days, the percentage of claims processed within 15 days, the number of requests for informal reviews, and the number of reversals are a few relevant measures which provide a glimpse of how the carrier might be serving the beneficiaries and providers who submit their claims for payment.

While such measures provide useful data to program managers, they cannot fully measure the human impacts of delayed payments, erroneous calculations of reasonable charges, or other carrier performance problems on the program's beneficiaries. In illustration, the operating statistics do not indicate whether beneficiaries experience financial hardship because their payment was delayed a month, if certain kinds of beneficiaries are more reliant on quick payment of their claims, and so on.

The main objective in conducting the telephone survey of Medicare's beneficiaries was to assess the extent and nature of financial hardships caused by payment delays that might have been experienced by the program's beneficiaries in the fixed price experimental sites. A secondary objective was to learn about beneficiary views of the Medicare program and its services.

The general approach of this survey has been to measure reported financial hardships of beneficiaries in the fixed price experimental sites in comparison to the three matched sites operating under the traditional cost reimbursement contracts.

One consideration in designing the survey was the fact that beneficiaries who are treated by providers who do not accept assignment are more likely to experience financial hardship. By definition, beneficiaries who receive their health care only from providers who accept assignment are liable only for the deductible, 20 percent coinsurance payment, and the cost of services not covered by the Medicare program. However, beneficiaries whose providers do not accept assignment are exposed to additional financial hardship when they must pay their providers for charges which may exceed the allowed level of Medicare payment. For this reason the survey focused on beneficiaries who filed at least one unassigned claim during calendar year 1981.[1]

It was also hypothesized that financial hardship was more likely to occur among beneficiaries who had to wait a longer than average period of time to receive their payment from Medicare in contrast to those who received prompt payment. Thus, the sample was stratified to capture both beneficiaries whose claims were paid within 30 days and those who waited over 30 days to receive their payment from Medicare.

Finally, a group of Medicare beneficiaries whose claims had undergone an informal review was examined separately. The assumption in selecting this additional subgroup was that beneficiaries with requests for reviews of their claims might have been more likely to experience financial hardship than others.

Table 4.1 illustrates the sample characteristics of the Medicare Part B beneficiaries interviewed as part of this survey. As shown in the table, three types of beneficiaries were interviewed at each of the six sites:

- a sample of beneficiaries who had all their claims filed in 1981, paid in 30 days or less;

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[1] Medicare beneficiaries were sampled based on their Part B payment records for calendar year 1981, the most recent year for which a complete annual set of payment records was available.

- a sample of beneficiaries where one or more unassigned claims in 1981 required more than 30 days to be paid; and
- a judgmental random sample of beneficiary cases where an informal review had been requested during 1982, the period of our site visits to these carriers. It must be emphasized that this informal review sample overlay is not a projectible portion of the Medicare population and was included for qualitative analyses only.

Table 4.1: Sampled Number of Beneficiaries by Strata

	All Claims Paid Within 30 Days	One or More Claims Paid Over 30 Days	Beneficiaries with Informal Review	Total
Fixed Price Experimental Sites				
Maine	42	60	18	120
Upstate New York	43	60	18	121
Illinois	70	100	30	200
Total	155	220	66	441
Cost Comparison Sites				
Nebraska	42	60	18	120
Wisconsin	42	61	18	121
Southern California	43	60	18	121
Total	127	181	54	362
Grand Totals	282	401	120	803

Source: Beneficiary survey.

As noted above, the beneficiaries in the first two strata based on the payment records were sampled based on their claims filing and payment experiences during 1981, while the strata of informal review cases was a sample overlay drawn from cases reviewed by the carrier during 1982.

The individual qualified to respond to the interview was either the sampled beneficiary or some other adult household member who handled that beneficiary´s Medicare claims filing and paperwork.

A total of six sites were included in the survey. Three were the fixed price experiment sites of Maine, Illinois, and upstate New York. The three comparison sites were Nebraska, a low claims volume territory (similar to Maine), administered by Mutual of Omaha; Wisconsin, a medium claims volume site (similar to upstate New York) which is presently administered by the Wisconsin Physicians' Service (WPS); and southern California, representing a high claims volume site (similar to Illinois), administered by the Transamerica Occidental Insurance Company.

4.3 Interview Topics

The telephone survey of Medicare beneficiaries focused on their health-related behavior and experiences with Medicare during the preceding 12 months. The brief phone interview covered the following topics:

- health care behavior--whether they had seen a doctor within the past 12 months; the places where they had seen the doctor (office, emergency room, etc.); the number of different doctors seen; presence of other health insurance coverage; whether they avoid seeing a doctor because Medicare does not pay enough;
- Medicare claims filing behavior--frequency with which their doctors submit the claims for the beneficiaries, whether they receive help in completing and submitting the form;
- Medicare reimbursement experiences--whether they had to wait more than one month to be reimbursed, when this last happened, length of time elapsed until reimbursed;
- financial hardship in paying doctors' bills--number of times in last 12 months where beneficiaries had to pay the doctor before being reimbursed, whether they took a variety of actions to pay their doctors' bills (borrowed money, withdrew savings, etc.);
- Medicare knowledge--awareness and use of the toll-free phone number, awareness and perceived helpfulness of the Medicare handbook;
- other Medicare-related actions and attitudes--whether they ever requested informal review, fair hearing; overall satisfaction with the way carrier is operating the Medicare program in their area; and

- demographics--marital status, household size, education, employment status, household income, tenure status, occupation.

The survey instrument is included in Appendix B.

4.3.1 Interviewing Operations

Approximately two weeks prior to the start of interviewing, advance letters were mailed to the sampled beneficiaries informing them of the survey effort and providing them with sufficient information about the purpose of the interview to enable them to make an informed decision about whether they wanted to participate in the survey. This advance letter complied with disclosures of the Privacy Act of 1974.

Experienced interviewers were trained on the specifics of this survey and conducted interviews from November 11, 1982, through December 6, 1982. Sampled beneficiaries for whom a telephone number could not be obtained were dropped from the sample, as were beneficiaries who had moved out of the site, were deceased, or institutionalized. Up to three attempts were made to complete an interview with the sampled beneficiary or with a substitute respondent--an adult household member who took care of the beneficiary's Medicare claims. Interviewing operations were conducted during afternoon and early evening hours and on weekends in order to have a good chance of contacting the respondent.

The average length of the interview was 15 minutes. The overall response rate of this survey was 82 percent, and Table 4.2 displays the response rates by each site and sampling stratum.

Table 4.2: Beneficiary Survey Response Rates Analyzed by Site and by Strata

	Number of Completed Interviews	Response Rate (Percent)
Fixed Price Experimental Sites		
Maine	120	82.8
Upstate New York	121	81.2
Illinois	200	79.7
Comparison Sites		
Nebraska	120	80.0
Wisconsin	121	88.3
Southern California	121	84.6
Strata		
All claims ≤ 30 days	282	82.7
One or more claims > 30 days	401	82.2
Informal reviews	120	82.2
Overall	803	82.4

Source: Beneficiary survey.

4.3.2 Limitations of the Survey

While this survey provides a good deal of valuable information concerning the experiences, behaviors, and attitudes of Medicare beneficiaries, there are, as with any research effort, certain inherent limitations. For one, only noninstitutionalized beneficiaries with telephones are included in this sample. Secondly, two of the sample strata were drawn from 1981 Part B payment records; thus, these sample groups exclude beneficiaries who did not have any claims paid during that year. The third strata--beneficiary cases for which an informal review was conducted during 1982--includes informal reviews conducted by the carrier at the end of 1981 and the early months of 1982. Perhaps most important, however, is the fact that this sample, while representative of the six sites included in the survey, is not necessarily representative of all Medicare beneficiaries throughout the nation. Lastly, the inherent constraints of self-reported behaviors and attitudinal data must also be realized since such information is subject to both measurement error and response error.

4.4 Characteristics of the Sample

Table 4.3 displays the demographic characteristics of the survey beneficiaries in the three fixed price sites (Maine, upstate New York, and Illinois) and the three comparison sites (Nebraska, Wisconsin, and southern California).

Overall, the sampled beneficiaries appear to be similar to the Medicare population as a whole when such variables as marital status, household size, and other demographic variables are examined. Table 4.3 records demographic characteristics of respondents at the fixed price and comparison sites. There are some differences between the beneficiaries at the fixed price sites in contrast to those at the comparison sites. Beneficiaries in the fixed price sites are more likely to:

- not own their own homes;
- have an eighth grade education or less;
- have "Under $5,000 per year" in reported household income; and
- live in a large city.

The health-related measures of the beneficiaries--perceived health, presence of other health insurance coverage--seem to be generally similar as well, though some differences deserve mention. (See Table 4.4.)

- Fixed price site beneficiaries reported their health to be not as good as persons of their age living at the comparison sites.
- There was no difference between the experimental and control sites in terms of the proportions of beneficiaries reporting some other kind of health insurance coverage for the things that Medicare does not cover.

Table 4.3: Demographic Characteristics of the Beneficiary Survey Sample

Characteristic	Total Sample	Fixed Price Sites	Comparison Sites
Base: beneficiaries in each group equals 100%	(803) 100.0%	(441) 100.0%	(362) 100.0%
Age			
Under 65	3.5	4.2	2.7
65 - 69	18.6	18.7	18.4
70 - 74	28.5	29.6	27.4
75 or older	49.4	47.4	51.5
Sex			
Male	39.8	30.8	48.9
Female	60.2	69.2	51.0
Marital Status			
Married	58.5	57.1	59.8
Separated	0.8	1.6	0.2
Divorced	1.7	2.0	1.3
Widowed	35.3	34.8	35.7
Single	3.7	4.5	3.0
Household Size			
One (live alone)	33.7	34.2	33.1
Two	55.6	53.2	57.9
Three	6.7	7.7	5.8
Four	2.5	3.9	1.1
Five or more	1.5	0.8	2.2
Tenure Status			
Owns	70.7	67.9	73.3
Rents	26.5	28.8	24.3
Lives rent free	2.1	1.8	2.4
Refusal/not reported			
Education			
8th grade or less	28.4	33.7	23.5
9th - 11th grades	12.1	12.3	11.8
12th grade	29.0	30.8	27.3
1 - 3 years college	19.8	15.0	24.2
4 years college	4.7	4.7	4.6
More than 4 years college	4.2	1.7	6.4
Employment Status			
Working	12.4	9.4	15.2
Not working	87.6	90.6	84.8
Retirement Status			
Retired	90.3	92.8	88.0
Not retired	9.6	6.9	12.0
Annual Household Income			
Under $5,000	23.0	270	19.3
$5,000 - 9,999	27.6	28.1	27.2
$10,000 - 14,999	15.5	16.5	14.6
$15,000 - 19,999	4.8	4.7	5.0
$20,000 or over	11.1	6.3	15.5
Refusal/not reported			
Size of Place			
Large city	30.7	27.9	33.3
Small city	33.3	31.6	34.8
Suburbs	20.3	24.1	16.8
Rural area	15.2	15.8	14.6
Refusal/not reported			

Source: Questions 13-15, 17-19, 21, and 22 of the beneficiary survey.

Table 4.4: Health-Relevant Characteristics of the Beneficiary Survey Sample

Characteristic	Total Sample	Fixed Price Sites	Comparison Sites
Base: beneficiaries in each group equals 100%	(803) 100.0%	(441) 100.0%	(362) 100.0%
Perceived health status compared to others the same age			
Better than others	45.6	43.4	47.6
About the same	39.5	39.7	39.4
Worse than others	14.1	16.6	11.7
Not reported	0.8	0.3	1.3
Have seen a doctor within past 12 months			
Yes	91.9	92.4	91.4
No	8.1	7.6	8.6
Number of different doctors seen in past 12 months			
One	36.9	39.5	34.6
Two	29.2	30.2	28.3
Three	14.7	12.7	16.5
Four	5.8	5.1	6.4
Five or more	5.3	4.9	5.6
Mean number of different doctors seen (Base: have seen a doctor)	2.1	2.0	2.2
(Standard deviation)	(1.42)	(1.34)	(1.49)
Has other health insurance coverage besides Medicare			
Yes	75.4	75.7	75.2
No	23.1	22.5	23.6
Not reported	1.5	1.8	1.2

Source: Questions 1, 2, 2B, 12 of the beneficiary survey.

The sampled beneficiaries at both groups of sites were analyzed in terms of the number of claims paid during 1981. As Table 4.5 illustrates, there is no appreciable difference between the fixed price sites and the comparison sites.

Table 4.5: Average Number of Claims Paid to Sampled Beneficiaries in Calendar 1981

Characteristic	Total Sample	Fixed Price Sites	Comparison Sites
Base: beneficiaries in each group	(803)	(441)	(362)
Mean number of claims for 1981			
Total	6.7	6.3	7.2
Assigned	4.9	4.5	5.4
Unassigned	1.8	1.8	1.8

Source: Based on payment records of the sampled beneficiaries interviewed in the beneficiary survey.

The amount of Medicare benefits paid to the interviewed beneficiaries (or on their behalf to providers accepting assignment) is presented in Table 4.6. There are some noteworthy differences and similarities which may be observed. Perhaps the most dramatic difference between the beneficiaries at the fixed price sites and those at the comparison sites is the differing levels of benefits paid per beneficiary. The average amount paid per beneficiary of $372 in the fixed price sites is considerably lower than the $567 paid per beneficiary in the comparison sites. Most of the difference is accounted for by the differing levels of assigned claims paid; nevertheless, beneficiaries at the fixed price sites still have somewhat higher amounts on an unassigned basis.

Table 4.6: Dollars Paid to Sampled Beneficiaries (or Their Assignees) in Calendar 1981

Characteristic	Total Sample	Fixed Price Sites	Comparison Sites
Average dollars paid per beneficiary case			
Total	$461.81	$372.09	$567.32
Assigned	365.77	270.11	478.28
Unassigned	96.04	107.98	89.04
Average dollars paid within 30 days			
Total	428.47	338.83	533.89
Assigned	335.21	239.39	447.90
Unassigned	93.25	99.43	85.99
Average dollars paid over 30 days			
Total	33.34	33.27	33.43
Assigned	30.56	30.72	30.38
Unassigned	2.78	2.55	3.05

Source: Based on payment records of the sampled beneficiaries interviewed in the beneficiary survey.

The majority of claims dollars are paid in both the fixed price and the comparison sites in 30 days or less. An average of $33 per beneficiary was unpaid within the first 30 days at both groups of sites.

Of particular interest is the fact that a relatively small dollar value of unassigned claims required more than 30 days to payment--an average of $2.55 per beneficiary in the fixed price sites, and an average of $3.05 in the comparison sites.

It should be noted, however, that although the average amount of unassigned claims is relatively low in contrast to the amounts paid to providers accepting assignment, there are a small number of cases where the beneficiary is awaiting reimbursement of several hundred dollars for their unassigned claims. While such cases are certainly atypical of carriers' payment performance, it underscores the reality that payment delays can be a cause of financial hardship.

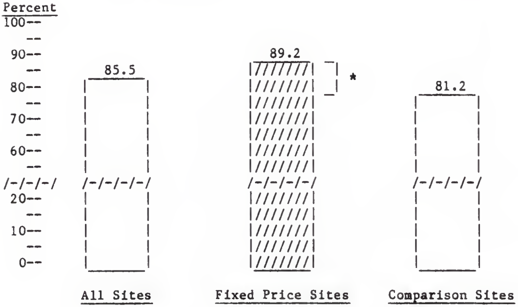
4.5 Financial Hardship

4.5.1 Introduction

One of the underlying assumptions of Medicare legislation is that the elderly and disabled are more exposed to financial hardships due to health care costs than are the rest of the population. However, there is no standard, accepted definition of "financial hardship," especially as the concept would apply to the elderly and disabled Medicare population. For the purposes of this study, we screened for financial hardship by first identifying those who had to pay their doctor before being reimbursed by Medicare.

Table 4.7 displays the proportion of the sample who had to pay their doctor before Medicare paid them. Note that beneficiaries in the fixed price sites are more likely than comparison site beneficiaries to have to pay their doctors before receiving reimbursement from Medicare.

Table 4.7: Percentage of Beneficiaries Who Had to Pay Their Doctors Before Medicare Paid Them



Source: Question 5 of the beneficiary survey.
*Statistically significant at the .05 level.

A beneficiary was further considered to have experienced financial hardship if (s)he did one or more of the following things while waiting to be paid by the Medicare carrier:

1. the beneficiary paid the medical bills with money that had been set aside for meeting household expenses;
2. the beneficiary did not buy prescriptions or medicines that (s)he needed, and instead used that money to pay the medical bills;
3. the beneficiary paid the medical bills with money borrowed from children or other relatives;
4. the beneficiary borrowed money from friends to meet his/her medical expenses; or
5. the beneficiary withdrew money from savings to pay the medical bills.

We examined these financial hardship measures to see if they differed between beneficiaries in the fixed price sites and the comparison sites. Table 4.8 displays the percentages of beneficiaries who reported taking each action to pay their doctors' bills before being reimbursed by Medicare within the past 12 months.

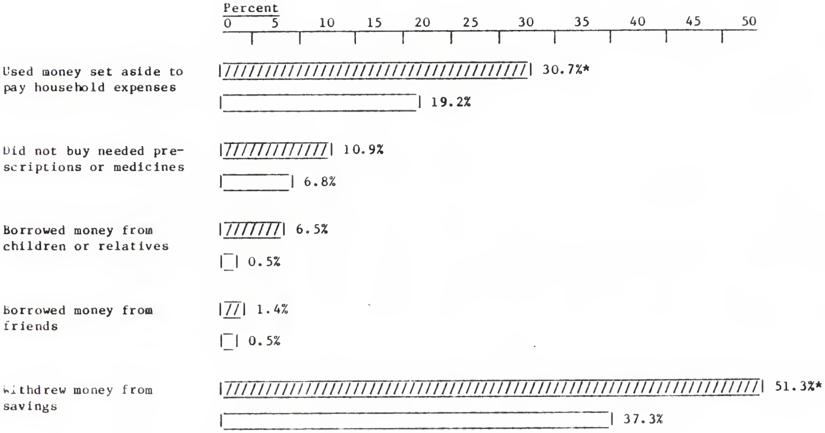
As Table 4.8 illustrates, beneficiaries at all sites are more likely to withdraw money from savings to meet their medical expenses than to take any other action. Fixed price site beneficiaries are even more likely than their comparison site counterparts to withdraw from their savings.

The second most frequently mentioned action is to use money that had been set aside for household expenses to pay their doctors' bills. Again, fixed price site beneficiaries report taking this action significantly more often in contrast to those in the comparison sites.

In general, beneficiaries more often report not buying needed medicines and prescriptions to pay their doctors' bills than they are to report borrowing money from children/relatives.

Since individual reports of specific actions are sometimes subject to a variety of response errors--sometimes over-reporting, other times under-reporting their actions--due to telescoping of timeframes under investigation, memory loss, and so on, an aggregate measure will often be a more meaningful measure of the concept of interest. Thus, the data were aggregated so that if beneficiaries reported at least one action, they were

Table 4.8: Percentage of Beneficiaries Taking One or More Actions to Pay Their Medical Bills Before Being Reimbursed by Medicare



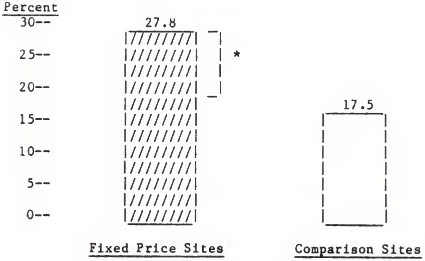
Source: Question 5A of the beneficiary survey.

*Statistically significant at the .05 level.

Legend:		Sample
Fixed Price Sites	▨	207
Comparison Sites	☐	145

considered as having experienced financial hardship in meeting their medical expenses. Table 4.9 summarizes the prevalence of reported hardship at the three fixed price sites in contrast to the three comparison sites.

Table 4.9: Percentage of All Beneficiaries Taking One or More Actions to Pay Their Medical Bills



Source: Derived variable from Question 5A of the beneficiary survey.

*Statistically significant at the .05 level.

Sample Size: Fixed price sites 441
Comparison sites 362

Clearly, Medicare beneficiaries at both the fixed price sites and the comparison sites experience a certain amount of financial hardship in trying to meet their medical expenses, but there is a statistically significant greater incidence of hardship being reported at the three combined fixed price experimental sites.

While at first glance, this difference between the fixed price and the comparison site beneficiaries appears to implicate the fixed price approach to contracting as being the cause of financial hardship on the program's beneficiaries, it must be remembered that the previously discussed health and demographic factors can be contributing to the observed differences. A stronger case for a "fixed price contracting" effect is made if each individual fixed price site has consistently higher levels of financial hardship relative to the comparison sites.

4.5.2 Analysis of Each Site

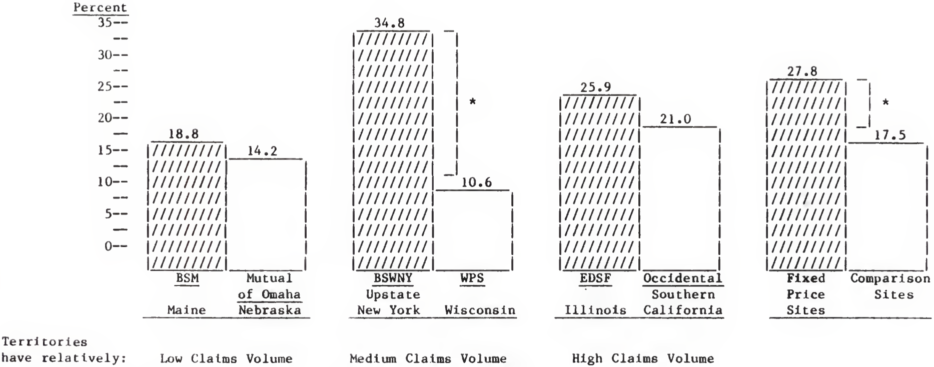
Table 4.10 shows the reported financial hardship levels for each of the six sites surveyed. The lowest level of reported hardship is by Wisconsin's beneficiaries, the highest by those in upstate New York, both of which are considered medium claims volume territories. Both Maine and Nebraska have similar levels of reported hardship; these two sites have a relatively low claims volume. Interestingly, the level of financial hardship reported by Illinois' beneficiaries is not significantly different from that of southern California's beneficiaries.

Furthermore, it appears the size of the carriers in terms of claims volume is, in itself, not directly related to the prevalence of financial hardship in paying doctors' bills.

4.5.3 Analysis of Financial Hardship by Payment Delay

One of our main hypotheses was that carrier delays in reimbursing beneficiaries directly contributed to financial hardship. We expected that beneficiaries who had one or more claims outstanding more than 30 days would be more likely to report experiencing some kind of financial hardship in paying their doctors' bills. However, we found that beneficiaries who had one or more unassigned claims outstanding for over 30 days are no more likely to report financial hardship than are those beneficiaries whose claims were

Table 4.10: Percentage of All Beneficiaries Reporting Some Kind of Financial Hardship to Pay Their Medical Bills (Analyzed by Site)



Source: Derived variable from question 5A of the beneficiary survey.

*Statistically significant at the .05 level.

Legend: Fixed Price Sites ▨

Comparison Sites □

all paid within 30 days. This is shown in Table 4.11 which displays the prevalence of financial hardship by length of time to payment.

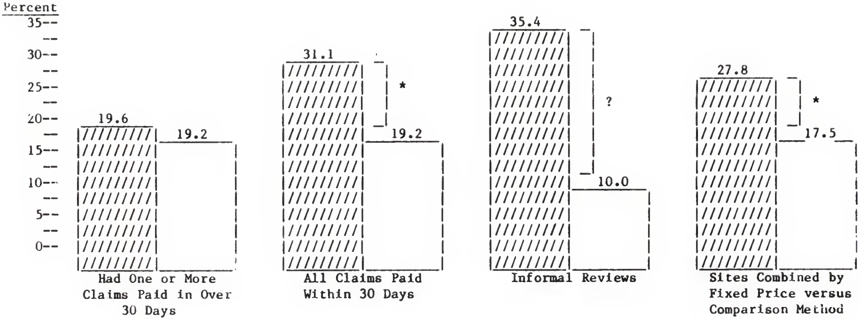
Surprisingly, we also found there is a substantially higher level of reported hardship in the experimental sites among beneficiaries who had all their claims paid within 30 days. While there is no clear explanation for this finding, one may hypothesize that beneficiaries susceptible to experiencing financial hardship will do so, almost irrespective of the amount of time elapsing betweem submission of the claim and receiving payment.

4.5.4 Analysis of Hardship Levels by Dollars Involved

One would hypothesize that beneficiaries are more likely to experience financial hardship if they have high medical expenses, if most of their health care is received from providers who do not accept assignment, or if there is a large sum of money for which they have waited over 30 days for Medicare to send the payment check.

Table 4.12 presents an analysis of the payment records of the beneficiaries interviewed in the survey. The average number of dollars paid (both assigned and unassigned) are displayed by the amount of time for those reporting hardship in contrast to those not reporting hardship in the three fixed price sites and the three comparison sites.

Table 4.11: Percentage of All Beneficiaries Reporting Financial Hardship to Pay Their Medical Bills (Analyzed by Sampling Strata)



Source: Derived variable from question 5A of the beneficiary survey.

*Statistically significant at the .05 level.

Legend: Fixed Price Sites ▨

Comparison Sites ☐

Table 4.12: Average Dollars Paid (Assigned Versus Unassigned) Analyzed by Length of Time for Payment and Financial Hardship Status

	Fixed Price Sites		Comparison Sites	
	Reported Hardship	Did Not Report Hardship	Reported Hardship	Did Not Report Hardship
Average dollars paid per beneficiary case				
Total	$477.08	$335.79	$739.71	$526.36
Assigned	364.55	237.45	620.96	444.38
Unassigned	112.52	98.34	118.75	81.98
Average dollars paid within 30 days				
Total	449.89	300.42	719.50	489.79
Assigned	340.60	204.58	599.58	411.86
Unassigned	109.83	95.84	119.92	77.93
Average dollars paid over 30 days				
Total	27.19	35.37	21.37	36.57
Assigned	24.49	32.87	20.21	32.52
Unassigned	2.70	2.50	1.16	4.05

Source: Based on Part B payment records of the sampled beneficiaries interviewed in the beneficiary survey.

Several observations deserve discussion concerning the relationship of financial hardship to the amount of money paid on assigned and unassigned claims. For one, beneficiaries who report some kind of financial hardship are more likely to have higher medical bills--that is, the average number of dollars paid by Medicare is greater for the hardship group than for those not reporting any hardship.

Also, beneficiaries reporting financial hardship have a higher dollar volume of unassigned claims. Further, while the majority of dollars are paid within 30 days for all groups, those beneficiaries reporting financial hardship have a higher average dollar level of unassigned claims.

A relatively small amount of money, on average, is outstanding over 30 days, and the amount that is unassigned is quite small.

4.5.5 Analysis of Financial Hardship by Health-Related Characteristics

In order to gain a better understanding of the kinds of beneficiaries likely to report experiencing some kind of financial hardship in paying their doctors´ bills, the data have been analyzed by several health-relevant variables. Table 4.13 displays the self-reported health status of beneficiaries, the number of different doctors seen within the past 12 months, and other relevant variables.

A few findings presented in Table 4.13 merit discussion. Regardless of whether the fixed price sites or the comparison sites beneficiaries are analyzed, those reporting some kind of financial hardship are more likely to say their health status is worse as compared to others their age. Those reporting financial hardship have seen more different doctors within the past 12 months and are also less likely to have other health insurance coverage in contrast to those beneficiaries not reporting any financial hardship in paying their doctors´ bills. These findings support the notion that financial hardship is related to beneficiaries´ health-related characteristics, rather than being a function of the fixed price or comparison sites in which they reside.

Table 4.13: Health-Related Characteristics of Beneficiaries Analyzed by Financial Hardship Status

	Fixed Price Sites		Comparison Sites	
	Reported Hardship	Did Not Report Hardship	Reported Hardship	Did Not Report Hardship
Health status compared to others of same age				
Better	34.5	46.8	52.5	46.6
Same	40.7	39.4	32.0	40.9
Worse	24.5	13.6	15.5	10.9
Number of different doctors seen in past 12 months				
None	0.0	10.53	0.0	10.4
One	32.3	42.2	24.3	36.7
Two	33.6	28.9	34.0	27.1
Three	21.9	9.2	18.4	16.1
Four	2.8	6.0	13.3	4.9
Five or more	94.4	3.2	10.0	4.8
Mean	2.4	1.9	2.7	2.1
Has other health insurance coverage besides Medicare				
Yes	70.1	77.9	62.0	78.0
No	27.8	20.5	33.1	21.6
Avoids going to doctor or getting medical advice because Medicare does not pay enough				
Yes	26.7	14.9	33.8	15.9
No	72.1	83.7	61.5	84.1

Source: Based on Part B payment records of the sampled beneficiaries interviewed in the beneficiary survey.

4.5.6 Analysis of Financial Hardship by Demographic Characteristics

The demographic characteristics of beneficiaries who reported some kind of financial hardship in paying their doctors' bills have been reanalyzed in comparison to those beneficiaries not reporting any hardship. The purpose of the analysis was to gain a fuller understanding of the factors related to financial hardship. Table 4.14 presents the demographics of beneficiaries in the fixed price sites and the comparison sites, analyzed by financial hardship status.

While there are several differences between beneficiaries who reported financial hardship and those who did not in the fixed price sites or in the comparison sites, there is little consistency in these differenc The one exception is that beneficiaries who reported financial hardship are considerably more likely to have an annual household income of under $5,000 per year. This fact adds strength to the hypothesis that financial hardship is a function of demographic and health-related factors, rather than a function of the type of contract that the carrier is operating under.

4.6 Satisfaction With Carrier Performance

Beneficiaries were also asked about their satisfaction with their Medicare carrier. Table 4.15 displays the wording of the question and the responses by carrier. Note that respondents were asked for their opinion and then questioned about the strength of their opinion. As shown in the table, about 80 percent of respondents were satisfied with their carriers. Little variation in responses occurred across sites.

Table 4.14: Analysis of Beneficiaries' Demographic Characteristics by Financial Hardship Status

	Fixed Price Sites		Comparison Sites	
Characteristic	Reported Hardship	Did Not Report Hardship	Reported Hardship	Did Not Report Hardship
Age				
Under 65	1.5	5.3	0.4	3.3
65 - 69	10.7	17.9	13.5	19.7
70 - 74	32.6	28.3	34.3	25.6
75 or older	45.1	48.4	51.8	51.4
Median age	74.2	73.9	77.0	74.6
Sex				
Male	26.3	32.7	29.6	54.2
Female	73.7	67.3	70.4	45.8
Marital Status				
Married	54.4	58.1	39.6	64.1
Separated	1.8	1.5	0.0	0.2
Divorced	3.6	1.4	4.9	0.6
Widowed	36.5	34.2	53.2	32.0
Single	3.7			
Household Size				
One	34.5	34.1	61.3	27.1
Two	50.9	54.1	34.5	62.8
Three or more	14.6	11.6	4.2	10.1
Tenure Status				
Owns	63.6	69.6	81.1	71.7
Rents	35.4	26.3	18.9	25.5
Lives rent free	0.0	1.5	0.0	2.9
Education				
8th grade or less	44.6	29.5	12.8	25.7
9th - 12th grades	33.9	46.7	38.5	39.2
1 - 3 years college	16.3	14.5	32.9	22.3
4 years or more college	3.2	7.7	9.8	11.3
Annual Household Income				
Under $5,000	36.1	23.5	29.5	17.1
$5,000 - 9,999	22.4	30.3	26.1	27.4
$10,000 - 14,999	13.7	17.6	12.5	15.1
$15,000 - 19,999	4.3	4.8	0.9	5.8
$20,000 or over	5.6	6.5	18.9	14.8

Table 4.15: Beneficiary Satisfaction with Carrier

The Social Security Administration makes arrangements with different companies throughout the country to receive the Medicare claim forms and send out the Medicare payment checks.

All things considered, are you satisfied or dissatisfied with the way the company in your area handles your Medicare claims?

	Nebraska	Wisconsin	Illinois	California	Upstate New York	Maine	Total
Satisfied	84.50%	86.10%	79.94%	82.10%	79.64%	88.92%	81.69%
Dissatisfied	6.56	7.13	13.00	10.01	9.80	2.69	10.46
Don´t know, no opinion	8.94	6.78	7.06	7.89	10.56	8.39	7.85
Total number	36	99	312	227	109	20	803

IF SATISFIED OR DISSATISFIED, ASK:

A. Are you very (satisfied/dissatisfied) or somewhat (satisfied/ dissatisfied) with the way they handle your claims?

	Nebraska	Wisconsin	Illinois	California	Upstate New York	Maine	Total
Very dissatisfied	2.05%	1.13%	3.54%	5.94%	5.90%	1.95%	4.14%
Somewhat dissatisfied	4.51	5.48	8.38	4.07	3.66	0.74	5.79
Don´t know, no opinion	10.99	10.62	8.80	10.46	18.54	12.83	11.02
Somewhat satisfied	34.00	31.56	35.00	29.56	31.73	29.49	32.35
Very satisfied	48.44	51.22	44.00	49.9	40.17	54.99	46.70
Total number	36	99	312	227	109	20	798

4.7 Multivariate Analysis of Beneficiary Hardship and Satisfaction

The rather unclear relationship between reported hardship, beneficiary demographics, and fixed price carriers recommended the use of multivariate statistical methods to disentangle them. We accordingly estimated two slightly different models.

The first model considered how reported hardship was related to beneficiary characteristics and to a particular carrier territory. Hardship (HARDSHP) was measured by a dummy variable which equaled one if any instance of hardship had been reported and zero otherwise. The model was estimated with a logit procedure to take account of the dichotomous nature of the dependent variable for hardship.

The second model used as its dependent variable an index which measured the beneficiaries' reported satisfaction with the carrier's service. The index was developed from the previously discussed survey question which asked, "All things considered, are you satisfied or dissatisfied with the way the company in your area handles your Medicare claims?" An index of beneficiary satisfaction (SATIS) was then developed from 1.00 ("very satisfied") to -1.00 ("very dissatisfied") with a neutral score of zero for "don't know" or "no opinion" responses. The second model was estimated with ordinary least squares.[1]

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[1] Ordinary least squares is appropriate in this case because all the explanatory variables were either dummy variables or variables that were transformed to fall within limited ranges. Continuous variables for the number of claims, number of physician visits, etc. were transformed to fall in the range of -1 to +1 by taking the hyperbolic tangent of the difference between an observation and its mean value. This transformation and our rationale for using OLS in this situation are also discussed in Chapter 3.

Explanatory variables in these models were drawn from either the survey itself or from Medicare payment records. Variables drawn from the survey included the level of household income (INCOME), the presence of another person who could "take care of you if you were sick" (HELPER), the presence of other health insurance besides Medicare (OTHINS), the size of the community in which the respondent lives (DENSE), and the number of times that the beneficiary had visited a physician(s) in the last year (VISITS). A set of dummy variables also measured whether or not a person reported having trouble in filling out Medicare forms (FORMPROB), whether the person had sought help with forms from a SSA district office (SSAHELP) or any other source (OTHELP). These variables were included in the models to control for poverty, isolation from other people, or ill health. [illegible] ditions might be expected to affect a person's perception of how well they were treated by a carrier apart from more objective measures of performance.

Other variables were obtained from Medicare payment records covering the 1981 calendar year. Variables used in the models were the total number of Part B claims filed for the beneficiary in the year either on an assigned or unassigned basis (CLAIMS), the percent of claims paid on assignment (ASSIGN), the ratio of the dollar value of unassigned claims not paid after 30 days to the dollar value of all unassigned claims submitted (PCTOV30). Data from Medicare payment records were merged with survey data to provide objective measures of the number of claims that the patient had processed by the carrier and the financial exposure which the beneficiary experienced after assignment.[1]

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[1] Data from Medicare payment records were obtained from HCFA's five percent sample of beneficiaries. Since the first two strata of our sample were drawn from the five percent file, payment record information was available for (footnote continued on the next page)

Table 4.16 provides definitions of variables used in these models while Table 4.17 lists model results.

Findings of these multivariate models are the following.

- Beneficiaries in Wisconsin, California, and upstate New York were more likely to report hardship. For upstate New York, the statistical significance of this finding was a borderline case ($p=.06$). Beneficiaries in Maine and Illinois were not more likely to report hardship than other sites.
- Dissatisfaction with the carrier was expressed more often by New York respondents than by other sites. This result had reasonable statistical significance ($p=.08$) but it occurred in a model which had low overall explanatory power ($\bar{R}^2=.09$). The finding should be treated cautiously.
- Persons who had other health insurance more frequently reported satisfaction with a carrier's performance.
- Persons who saw a physician more often or who had problems with filling out Medicare forms were more frequent in reporting dissatisfaction with the carrier. Reports of hardship were also associated with more frequent physician visits. This may reflect either a tendency to blame the carrier for problems (ill health, complex forms) beyond its control or a tendency for problems to arise simply from more frequent use of health care.
- There is no indication that carrier delays in paying claims within 30 days is directly related to beneficiary reports of financial hardship.
- The frequency of assignment of claims by providers had no significant relation to the frequency of reported hardship or to satisfaction with the carrier. The result is surprising since assignment is supposed to simplify for an individual the complexities of dealing with Medicare.

(footnote continued from previous page)
only 683 cases of the 803 in the completed survey. The remaining 120 cases were beneficiaries in the sample overlay of persons who had requested informal reviews. Since these persons had a low probability of appearing in the five percent sample of payment records, no attempt was made to search the payment records for them. The number of observations reported for the multivariate models reflects this fact, as well as any other cases where variables were not reported in the survey itself by beneficiaries.

Table 4.16: Variables Used in Analysis of Beneficiary Satisfaction

ASSIGN	Percent of claims paid on an assigned basis. Computed from Medicare payment records.
CLAIMS	Total number of Part B claims filed for the respondent during the last year. This information was obtained from Medicare payment records. Both assigned and unassigned claims were counted.
DENSE	A variable for urban density. Ranges were (1) large city, (2) small city, (3) suburban area, and (4) rural area.
FORMPUB	Dummy variable equal to 1 if reported difficulty in filling out Medicare forms.
HELPER	A dummy variable equal to 1 if there was "someone who could help you if you became seriously ill."
INCOME	Household income as reported by the respondent. Responses were in categories (1) $0 to $5,000, (2) $5,000+ to $10,000, (3) $10,000+ to $20,000, and (4) over $20,000.
OTHELP	Dummy variable equal to 1 if sought help with forms from any other source.
OTHINS	Dummy variable equal to 1 if the respondent had other medical insurance besides Medicare, zero otherwise.
PCTUV30	Ratio of dollar value of claims unpaid over 30 days to dollar value of all unassigned claims.
SSAHELP	Dummy variable equal to 1 if sought help with forms from local SSA office.
VISITS	Number of times the person reported seeing physician(s) within the last year.

Table 4.17: Multivariate Models of Beneficiary Attitudes

Variables	Dependent Variable SATIS Satisfaction with Carrier Ordinary Least Squares	 HARDSHIP Any Financial Hardship Logit[a]
INTERCEPT	1.103 (3.706)	−0.855 (3.33)
WI	0.022 (0.151)	−0.876** (2.27)
IL	0.019 (0.148)	
CA	0.093 (0.634)	0.448 (1.57)
NY	−0.257* (−1.738)	0.390 (1.39)
ME	0.021 (0.141)	
INCOME Total household income	0.012 (0.579)	−0.172*** (2.75)
OTHINS Other health insurance	0.164* (1.624)	
CLAIMS Number of Part B claims	0.012[b] (0.234)	
VISITS Number times seen doctor(s)	−0.111***[b] (−2.364)	0.023*** (3.30)
SSAHELP Sought help from SSA office	−0.051 (−0.290)	
OTHELP Sought help from others	0.232* (1.686)	
FORMPROB Had trouble with forms	−0.593* (−3.830)	
HELPER Person who could care for you	0.382 (4.472)	
DENSE Urban density	−0.044 (−1.191)	
HARDSHIP Any financial hardship	−0.319*** (−3.154)	
SATIS Satisfaction with carrier		−0.32* (3.31)
PCTUV30 Percent unassigned claims dollars unpaid after 30 days	0.049 (0.382)	0.267 (1.27)
ASSIGN Assignment rate for individuals	−0.0013 (0.568)	
	$\bar{R}^2 = .09$ $F = 4.39$	$X^2 = 48.87$
Number of observations[c]	599	599

[a] Final iteration of stepwise logit, entry level = .3.

[b] Variable transformed as $TANH(\bar{X}-X)$.

[c] Excludes overlay sample of beneficiaries with informal reviews. Information on annual claims volume was not available for this group.

*Significant at the 10 percent level.

**Significant at the 5 percent level.

***Significant at the 1 percent level.

4.8 Views About Toll-Free Phones, Claims Forms, and Speed of Payment

Our survey also asked beneficiaries about their views on three other issues. These were the importance of toll-free telephone service, the difficulty of filling out the Medicare claim form, and their satisfaction with the speed of claim payment. These issues are of general interest to the Medicare program. Toll-free telephone service is a relatively new carrier function which was initiated by the fixed price experiments. The complexity of the claim form and the speed of payment are issues of continuing concern.

Table 4.18 reports beneficiaries' views about the importance of toll-free telephone service. Overall, less than half of the respondents said they were aware of the existence of a toll-free ("800") phone number that they could call to find out about their Medicare claim. Respondents in southern California (only 25 percent) were least aware of this service. Of all respondents, only about 13 percent had ever used the toll-free line. Very few respondents (1 percent) had used the line and found it not to be helpful or that it was too busy to service them. Finally, a significant minority (about 11 percent) of the respondents both knew about the line and felt it to be "very important."

Table 4.19 reports beneficiary views on difficulties with the claim form. Overall, only 51 percent of the respondents recalled that they had ever sent in a claim directly to the carrier. This is a surprisingly low percentage since our sample of beneficiaries consisted of people who had received payment for at least one unassigned claim in 1981 or who requested an informal review of the claim. Either the respondents have forgotten about sending in claims, or the provider must have sent in their unassigned claims for them.

Table 4.18: Beneficiary Views About Toll-Free Telephone Service

	Nebraska	Wisconsin	Illinois	California	Upstate New York	Maine	Total
Percent of respondents who:							
were aware of toll-free line	42%	39%	25%	44%	49%	53%	42%
had ever used toll-free line	17	8	7	11	22	18	13
had used line; found it not helpful or were unable to reach carrier	1	0	0	1	2	4	1
knew about line and felt it to be very important	11	8	7	9	21	13	11
Total	120	121	121	200	121	120	803

Table 4.19: Beneficiary Views About Medicare Form and Speed of Payment

	Nebraska	Wisconsin	Illinois	California	Upstate New York	Maine	Total
Percent of respondents who: had ever sent in claim form themself	52%	33%	60%	65%	45%	45%	51%
ever had problems filling out claim form	9	7	5	11	14	7	9
ever received help with form from SSA office	5	2	4	11	8	3	6
ever received help with form from senior citizen center	0	1	2	2	2	2	1
ever received help with form from friends or relatives	11	7	7	9	17	9	10
Total respondents	112	111	112	184	113	117	803

Problems with filling out the claim form were remembered by nine percent of respondents overall. Six percent of respondents had received help with claims from their local Social Security office, ten percent received help from friends or relatives, and only one percent had received help from a senior citizen center or similar organization.

Table 4.20 shows that almost one-third (31 percent) of all respondents felt that their Medicare claim had been paid quickly. Views on this issue ranged from a low of 18 percent in Wisconsin, to a high of 41 percent in southern California. When these views are compared with the carriers' actual mean processing time in 1981, it appears that beneficiaries had different views which were roughly correlated with actual carrier performance. In our sample, the two slowest paying carriers were Wisconsin (16.5 days) and Illinois (12.6 days). They respectively had the lowest percent of respondents (18 percent and 26 percent) who felt that the carrier paid claims quickly. This correlation, however, is imperfect for the more rapid paying carriers, suggesting that beneficiaries are not particularly aware of the speed of claim payment if claims are paid within 12 working days.

5.0 EVALUATION OF THE QUALITY OF INFORMAL REVIEW CORRESPONDENCE

The evaluation of fixed price experiments included an evaluation of informal review correspondence mailed to beneficiaries and providers by Medicare Part B carriers. The objective of this analysis was to determine if this aspect of carrier performance may have deteriorated in response to fixed price incentives. The quality of correspondence is potentially important to examine for two reasons. First, it is an aspect of performance which is not easily monitored by HCFA through quantitative measures; consequently, quality compromises in this area might go undetected. Second, this aspect of performance is one that relates directly to beneficiary and provider perceptions of the Part B program.

In general, we find no evidence that the quality of carrier activities in this area has deterioriated due to fixed price incentives, though there is some indication that procedure coding problems are more frequently the source of complaint in the fixed price sites. We also find that letters from carriers in general are often difficult to read.

General Method

A sample of 60 cases of correspondence (in hard copy) was requested from each experimental site (Maine, upstate New York, Illinois) and from their respective comparison sites (Mutual of Omaha and Minnesota, Indiana and Wisconsin, Nationwide and Occidental).[1] Carriers were asked to select every fifteenth piece of correspondence received each work day, beginning with October 1, 1981, until the 60 sample cases were drawn.

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[1] This analysis did not consider carrier performance in terms of volume or timeliness of correspondence. For a review of these findings, see Chapter 2.0 of this report and the case study reports prepared on each of the experimental sites.

The sample of informal review correspondence was to include copies of:

- the initial claim;
- the initial EOMB (Explanation of Medicare Benefits);
- the request for review or inquiry (from the beneficiary or provider);
- the carrier response to the request for review; and
- the subsequent EOMB (when applicable).

The evaluation of correspondence was conducted in two ways. The first focused on the readability of stock paragraphs used by the carriers in their responses to Medicare beneficiaries and providers. The second phase consisted of an in-depth look at the carrier's performance in handling the Part B claim, from the initial determination of benefits to the final determination. Both phases gave particular attention to the clarity and understandability of correspondence exchanged between the carrier and the beneficiary or provider.

We should note that all of the Medicare carriers that we examined use automated correspondence systems that have many similar characteristics, though some make more frequent use of tailored or customized narrative. The systems consist of word processing equipment that is tied into the main claims processing data base. All systems have sets of stock paragraphs which can be customized by the clerk who is answering a particular inquiry. Systems differed in terms of the variety of stock paragraphs and the amount of information which a clerk could automatically retrieve or insert into a reply letter. The three fixed price carriers all use similar versions of an automated correspondence system marketed by EDSF. This system is highly advanced in its ability to link word processing equipment with other data base information.

Our case studies of the carriers revealed some technical differences in their correspondence systems. However, we found that the major difference among the carriers was in their willingness to devote human labor to customizing the text of letters. Obviously, personal-sounding letters that contain specific details ("...your trip on October 21 to General Hospital in the Good Hope ambulance...") are more expensive to prepare than letters that use unaltered stock paragraphs.

5.1 Correspondence Sample Characteristics

There was considerable variation in the characteristics of correspondence collected from sites. This variation occurred in spite of attempts to implement a random sampling procedure. The "mix" of correspondence may, of course, vary from region to region for a variety of reasons. However, there is some question that carriers selected correspondence for our review in a like fashion. The characteristics of the sample correspondence are shown in Table 5.1.

The types of inquiries differ sharply between the extremes of Maine and Indiana. In the former state, the vast majority of inquiries were pursuant to a claim submitted by a provider. Here, the inquiry was almost always initiated by a provider, the EOMB was often the basis for the inquiry, and most (92 percent) of the inquiries were based on assigned claims. In Indiana, at the other extreme, most (81 percent) of the inquiries were submitted by beneficiaries, only 3 percent were based on original claims to providers accepting assignment. The characteristics of the correspondence received from other carriers are not so extreme: 26-58 percent of inquiries

Table 5.1: Characteristics of Sample Correspondence

Characteristic	Maine	Nebraska	Minnesota	Upstate New York	Indiana	Wisconsin	Illinois	Nationwide	Occidental
Number of pieces of correspondence	61	61	60	64	63	62	62	60	62
Percent of inquiries submitted by									
Beneficiary	5	23	33	30	63	31	46	48	23
Relative	2	10	12	9	18	3	5	10	3
Provider	90	51	42	53	5	49	44	23	66
Provider for beneficiary	3	13	12	6	13	10	5	15	2
Congress	0	0	0	0	0	0	0	0	2
Other	0	3	1	2	2	2	7	0	5
Percent using inquiry format									
HCFA 1964	0	3	3	2	8	3	11	8	15
EOMB	66	28	8	31	22	16	21	12	10
Letter	3	21	33	8	11	8	10	15	13
Other	2	10	12	9	0	10	10	2	13
Percent of original claims submitted by									
Beneficiary	2	18	7	13	22	10	13	20	2
Provider	95	79	77	58	68	87	87	70	53
Other/unknown	3	3	16	29	10	3	0	10	45
Percent assigned	92	42	25	43	3	44	48	23	47
Percent by type of dispute									
Payment amount	82	77	75	63	78	86	68	75	82
Other	18	23	25	37	22	14	32	25	18

were submitted by beneficiaries or relatives, assignment rates vary from 23-47 percent, and most of the claims (53-87 percent) were submitted originally by providers.

In all locations, the predominant reason for inquiries was a dispute over payment amount. Across the sites, 63-86 percent of the sample correspondence was related to payment amount (other reasons included medical necessity of services, eligibility, etc.). In both Illinois (EDSF) and upstate New York, we note that the frequency of payment-related inquiries was lower than comparison sites; in Maine the reverse is true.

There are no other patterns in these general inquiry characteristics that distinguish the experimental sites. Patterns relating to the substance, quality, and speed of carrier disposition are reviewed below, following a general discussion of correspondence quality and readability.

5.1.1 Measures of Readability

An important aspect of any correspondence system is the ease of reading the written response. The importance of readability is underscored by the fact that 23 states now require that insurance policies be written in plain language. The Medicare program itself requires carriers to write in plain language. Carriers are urged to use brief paragraphs, short sentences, simple words, and the active voice whenever possible.

There are two widely used methods for "measuring" readability. The readability scoring system developed by Dr. Rudolf Flesch is one popular and widely used method. The Flesch Test has been recommended by the National Association of Insurance Commissioners in their Life and Health Insurance

Policy Language Simplification Act (1978) and is considered the major standard for readability measurement today. It is widely used in government and academic applications in addition to its current popularity within the insurance industry.

The Flesch Index Raw Score is computed by counting syllables, words, and sentences. The higher the score (on a scale of 0-100), the easier the text is to read. The following three formulas are used to produce the raw score:

1. (number of words/number of sentences) X 1.015 = X;
2. (number of syllables/number of words) X 84.6 = Y; and
3. 206.835 - (X+Y) = Flesch Index Raw Score.

The Flesch Index Raw Score can be converted to a grade level using the following table.

Flesch Raw Score	Grade-Level Formula
if -50 through 49:	(140-Flesch)/ 6.66 = Grade Level
if 50 through 59:	(93-Flesch)/ 3.33 = Grade Level
if 60 through 69:	(110-Flesch)/ 5.00 = Grade Level
if 70 or more:	(150-Flesch)/10.00 = Grade Level

A resulting grade level of 10.00, for example, indicates a level of reading complexity equivalent to the reading ability of the average tenth grade student.

One of the alternate standards of readability commonly used by the federal government is the Kincaid Index. An approximate grade level is determined by the following formula:

Grade Level = 0.39 X (average words per sentence) + 11.8 X (average syllables per word) - 15.59

Informal review correspondence from each site was examined to identify frequently used stock paragraphs. Each distinct paragraph appearing in the correspondence was tabulated to determine its frequency of use. The ten most frequently used paragraphs[1] were then analyzed by computer to determine the readability grade level of the paragraphs in terms of both the Flesch and the Kincaid indices. Separate grade level scores were tabulated for each paragraph and for each grouping of paragraphs into a single page of text.[2]

We should mention that paragraphs in Medicare correspondence are typically short. They often have one to three sentences. Carriers usually write a letter by combining stock paragraphs and customizing these paragraphs as necessary.

There are, of course, certain obvious limitations to our procedure of sampling paragraphs to compute a readability score. The user manual for the readability score computer program itself notes that "taken out of context, the numbers produced by the Readability Index for the Flesch Index have no intuitive meaning." This is because the readability scores do not measure the accuracy of a letter or its responsiveness to a particular topic. The scores measure only the frequency of big words and complex sentences.

5.2 Findings on Readability and General Correspondence Quality

Given the definitions of the Flesch and Kincaid scores, we expected that the grade level scores for the correspondence would be high. This was because many sentences were long and contained numerous polysyllabic words. We were surprised, however, to learn just how high the actual grade level scores were for readability. In general, Flesch grade level scores for each carrier were at the level of second to third year of college. Hence, there may be some question as to whether the majority of Medicare beneficiaries can easily understand the content of the letters they receive from the Part B carriers. We should note for comparison that *Time*, *Newsweek*, and *The Wall Street Journal* usually score an eleventh grade reading level while the nation's best selling magazine, *TV Guide*, usually has a sixth grade level.

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[1] Paragraphs which identified specific beneficiaries, providers, dates, and dollar amounts were altered to read John Doe, Dr. John Smith, or General Hospital, 3/1/82 or 3/1/82-3/5/82, and $5.00 for purposes of comparison.

[2] In the following tables, the combined score for all paragraphs does not equal the simple average of the scores for the ten paragraphs due to rounding of the separate scores.

5.2.1 Maine

Most of the informal review requests in the sample were filed by providers. The providers generally requested their reviews on the Explanation of Medicare Benefits (EOMB) statements they had received from the carrier. Other documentations submitted to the Medicare carrier with the requests for review included copies of the original claim forms (some with diagnoses filled in) and Durable Medical Equipment Medical Necessity forms. There was little variation in the requests; most of them concerned disputes over incorrect payments resulting from the utilization of wrong procedure codes by the carrier. The amounts of dispute were generally less than $50.00.

In general, the review requests in the sample from Maine were legible and clear. Unlike correspondence we received from other sites, correspondents in Maine made no comments about the carrier, the Medicare program, or providers. Since the majority of requests were from providers, we did not expect to see any references to personal circumstances; however, we were surprised that no comments were made about the carrier or the Medicare program.

Almost all requests for review in the Maine sample were for claims with benefits assigned to providers. Our review of the characteristics of the initial claims with the initial EOMB revealed a high rate of agreement within the compared data elements (beneficiary name, address, provider name, etc.). As expected, any discrepancy of procedure codes was corroborated by the nature of provider dispute over payments.

Some of the problems we saw in the carrier's response to requests related to identifying correctly the major issue raised by the inquiries and, in one case, not addressing a secondary issue. For example, in one case the provider questioned the amount of the second procedure performed, but the carrier said the major issue was whether or not the second procedure was covered. In another case, the provider questioned the correctness of a payment on an assigned claim; an adjustment was made and the payment was sent to the beneficiary. The carrier response instructed the provider to contact the beneficiary. Several cases involved correspondence that was sent to inappropriate addresses. For example, when the beneficiary asked to have the response mailed to an address in Florida, the response to this letter was sent to an address in Maine.

The level of customization (personalization, references to specifics) of letters in Maine was low. A review of Part B correspondence from Maine indicated that letters fall into two basic categories: one letter which states that an error has been made and an adjustment will be initiated, and another which usually denies a request for a higher payment and explains the reasonable charge methodology of the Medicare program.

The Flesch grade level scores for paragraphs we examined in the Maine correspondence ranged from a low of 8.4 (eighth grade) to a high of 21.8 (post doctorate). The text for grade level 8.4 was a one-line paragraph as follows:

"This is a copy of the letter sent to your physician/supplier."

The text for grade level 21.8 pertained to the reasonable charge methodology. It appears that the score was very high due to the extraordinary length of the sentence (110 words):

> For all claims received on or after July 1, 1981, payment will be based upon the lower of a physician's customary charge, the median of actual charges submitted for a given procedure/service throughout calendar year 1980 and the prevailing charge, the 75th percentile of weighted customary charges for a procedure within a physician's medical specialty and locality.

The Flesch grade level score, in Maine, was 15.3 for the text of all 10 paragraphs.

Table 5.2 displays the Flesch and Kincaid grade level scores for each of the ten paragraphs and the overall grade level score for all the paragraphs.

Table 5.2: Reading Grade Level Scores for Maine

	Individual Paragraphs										All Paragraphs Combined
Index	1	2	3	4	5	6	7	8	9	10	
Flesch	13.7	17.0	16.5	15.5	10.4	8.4	14.3	15.5	16.3	21.8	15.6
Kincaid	12.5	13.5	14.5	16.1	9.1	6.8	10.7	16.1	16.4	29.5	14.4

5.2.2 Maine Comparison Sites: Mutual of Omaha and Minnesota

Mutual of Omaha. The sample of informal review correspondence from Nebraska included a substantial number of incomplete cases. In many cases the photocopies of initial claims and EOMBs were not clear enough to fully identify some data elements. Overall, however, the rest of the correspondence within the file was easy to read and adequate for data abstraction. The majority of requests for review were from providers. Requests initiated by providers for beneficiaries, as well as requests initiated by the beneficiaries themselves, were also seen. Most of the requests were in the form of letters, and many of the cases include copies of EOMBs. Some review requests were filed on HCFA 1964 forms and copies of the claim forms.

Most of the requests for review were due to disputes over payment relating to reasonable charge methodology and covered services. Several cases each concerned wrong procedures codes and the medical necessity issue. Approximately one-half of the amounts of disputes seen in the correspondence were under $100, and the remainder in the $100 to $500 range. Most of the inquirers included a copy of the EOMB, and in those cases where an EOMB was not submitted, the correspondence generally included sufficient information to identify the beneficiary and claim.

Most of the informal review requests were clear and legible. A few remarks were made about the Medicare program, the carrier, and personal circumstances. Several beneficiaries mentioned financial hardships and several providers indicated their dissatisfaction with the Medicare program in regard to the medical necessity issue, e.g., reason for CAT scan and the use of durable medical equipment.

Our comparison of the characteristics of initial claims with initial EOMBs revealed a considerable number of disagreements in procedure codes and provider identification numbers. Almost one-half of the sample cases we received were missing adjustment EOMBs. Of the remaining cases, requests for review resulted in additional payments for about half of the claims and adjustment EOMBs were on file. It is interesting to note that some of the Nebraska cases, which required an additional payment as a result of requests for review, did not include any letter from the carrier. The lack of an explanatory letter when an additional payment is made is consistent with recent abatement procedures authorized by HCFA. The check in effect is supposed to speak for itself about the outcome of a carrier review. For these cases (approximately one-fifth of the sampled correspondence) we were not able to abstract data about the carrier response to the request for review.

Several preprinted form letters were used for some cases allowing for addressee and claim information to be hand-written on the form. Since no space is allowed for dates of service or provider name, we consistently noted that these carriers' citation of claim information on letters in file was incomplete. Overall, the letters were generally low in level of customization and although the major issue was addressed in the majority of cases, the form letter format restricted the specificity within the letters.

Mutual of Omaha enjoys the distinction of having the lowest overall Flesch grade level score (13.6) of the nine carriers examined in this evaluation. Mutual of Omaha's easiest to read paragraph had a Flesch score of 7.6. It says:

> "We find that the allowance on this claim was based on these criteria and is correct."

The paragraph for Mutual of Omaha, which had the highest Flesch score of 19.4, did so because of the high ratio of polysyllabic words in the sentence:

> "Charges are allowed according to the doctor's customary or the area prevailing allowances for the services provided."

Minnesota. More than half of the requests for review in Minnesota were filed by beneficiaries, their relatives, or the providers on behalf of the beneficiaries. Just under one-half of the requests were filed by the providers themselves. Letters were most commonly used in the sampled correspondence from Minnesota as the format for review requests. In many cases, copies of the EOMBs were submitted with letters, and in some cases, EOMBs were used as the inquiry format. For those cases which did not include copies of the EOMBs, information was generally adequate to identify the beneficiary and claim. A small number of requests were filed on HCFA 1964 forms and some cases included copies of the Medicare Payment Record--Part B, which appears to be a substitute for the EOMB sent to providers in other sites.

The majority of requests for review were initiated because of disputes over payments (generally, reasonable charge methodology and covered services). Of these two issues, the cases were split about evenly. It is significant to note that in Minnesota very few cases involved wrong procedure codes or clerical errors. The amounts of disputes were, for the most part, under $150. A few cases involved amounts ranging between $500 and $1,000.

Some of the additional information submitted to the carrier along with the requests for reviews included operative notes, itemized bills, diagnoses, corrected diagnoses, and medical necessity forms. One attachment which was particularly interesting was a copy of correspondence from the insurance plan of a large employer which instructed the beneficiary to request a review from Medicare.

Many of the beneficiaries who wrote in also included medical information about themselves. The majority of requests for reviews were clear and legible but did not mention providers, the carrier or the Medicare program. In those cases where personal circumstances were mentioned, they involved financial and medical hardships.

Most of the claims were submitted by providers and the assignment rate was low on the claims in the sample. There was a high rate of agreement between the data elements of the initial claims and the initial EOMBs. A substantial number of review requests were for claims for ambulance services, chiropractic treatments, and foot care. Some claims required additional information from providers or beneficiaries before final determinations could be made.

Approximately one-half of the requests for reviews resulted in additional payments. The Medicare correspondence from Blue Cross Blue Shield of Minnesota revealed a moderate to high level of detail in overall customization of response letters. In most cases, the carrier specifically addressed the type and number of services provided, the action taken, and the particular Medicare guidelines which limited or disallowed benefits.

We were rather impressed that the carrier in Minnesota had made the effort to contact the provider on behalf of a beneficiary in one case where the provider had made a billing error. They notified the beneficiary of the correction in their response to a request for review.

In another case, where the beneficiary had indicated she had never received a payment or an EOMB, the carrier enclosed a copy of the EOMB with the response letter. Although the carrier's responses generally addressed the major issues adequately, we saw a few cases where issues were only partially addressed. For example, one letter stated that the issue was the reasonable charge methodology; however, the file indicates that the disallowances were the result of a previous overpayment.

Our review of the correspondence from Blue Cross and Blue Shield of Minnesota revealed a level of reading difficulty in between Mutual of Omaha and Maine. However, Minnesota's correspondence tends to use stock paragraphs less extensively than the other carriers. When stock paragraphs were used, they were often customized to address a particular issue at a personal level. On a purely subjective basis, we found that Minnesota's correspondence was one of the more informative and pleasant to read (Wisconsin Physicians' Services was the other carrier with that characteristic). In terms of readability scores, Minnesota's overall Flesch score was 15.0 and its overall Kincaid score was 13.3.

The stock paragraph with the lowest reading level (8.7 Flesch, 8.4 Kincaid) for Minnesota was:

> We are sending this letter to keep you informed of certain correspondence that has transpired between this office and Dr. John Smith. The following represents the context of the letter sent to Dr. Smith.

The Minnesota paragraph with the highest reading score (20.6 Flesch, 18.6 Kincaid) had a large number of polysyllabic words:

As our history indicates, General Hospital's reasonable charge allowances were as indicated on the Explanation of Benefits letter, no additional payment can be made.

The Flesch and Kincaid scores for Mutual of Omaha and Minnesota are shown in Table 5.3.

Table 5.3: Reading Grade Level Scores for Mutual of Omaha and Minnesota

Index	Individual Paragraphs 1	2	3	4	5	6	7	8	9	10	All Paragraphs Combined
Mutual of Omaha											
Flesch	10.1	12.2	19.4	13.6	14.8	14.0	16.4	7.6	9.3	14.5	13.6
Kincaid	11.1	10.4	16.1	9.8	9.8	12.3	15.2	6.9	8.4	10.8	10.9
Minnesota											
Flesch	14.3	15.7	15.4	16.6	20.6	9.6	8.7	12.1	18.1	13.9	15.0
Kincaid	14.8	13.4	14.5	15.2	18.9	8.3	8.4	9.3	20.0	12.2	13.3

5.2.3 Upstate New York

Approximately half of the correspondence we initially reviewed from Blue Shield of Western New York reflected coding or processing errors for which adjustments were initiated. Correspondence about cases where the carrier maintained the original denial after review cited a variety of reasons for this denial. Some examples of reasons for denial were:

- eligibility;
- noncertification of facilities;
- physical therapy and foot care regulations; and
- change in profiles not in effect at time services were rendered.

We were surprised that a much smaller percentage of the upstate New York letters concerned the reasonable charge methodology than we found for the other carriers. The wide variety of issues addressed in the upstate New York correspondence resulted in a moderate to high amount of customization in the letters.

The majority of requests for review concerned amounts of dispute under $200 and a small number of cases concerned amounts in the $500 to $1,000 range. Information received with requests for reviews included diagnoses, itemized bills, Durable Medical Equipment Medical Necessity forms, and medical information about the beneficiaries themselves.

The comparison of initial claims data with initial EOMB data revealed a high rate of agreement in the completed cases we received (two-thirds of sample). In the few cases where disagreement did occur, they were seen in procedure codes, dates of service, and Health Insurance Claim (HIC) numbers.

A very small number of the requests for reviews showed any comments made concerning personal circumstances. One beneficiary mentioned that a delay in processing would cause some financial difficulties. Another stated that the claim was very unfair, and one provider indicated that after the third notice of his request for review, copies of the letter would be sent to congressmen, the Department of HHS, and the Social Security Administration.

The majority of claims that were on file were submitted by the providers; about half of the claims were on an assigned basis. Most claims were submitted on HCFA 1490 forms and most of the requests for reviews resulted in adjustment payments.

The level of customization in correspondence from upstate New York was generally low with the exception of a few cases which had a high or moderate level of customization. Evidence of an automated system existed in two pieces of correspondence: in one case, the addressee's name appeared twice in the address, and in the other case, the same stock paragraph appeared twice in the body of the letter.

The Flesch grade level score for the combined text of the ten paragraphs in our sample was 14.1 (Kincaid, 11.6). The lowest Flesch score (9.9) (Kincaid, 9.5) was assigned to the following paragraph.

> Any further claims with dates of service on or after July 1st will be priced at the updated profile amounts; this claim has been paid correctly using the provider profiles in effect at the time services were rendered.

The highest Flesch score (16.7) (Kincaid, 13.7) was for a paragraph with numerous polysyllabic words.

> The annual update of Medicare B pricing information takes place on July 1st of each year. Each Medicare provider's customary charges are re-calculated based on the previous year's billings, and new prevailing charges are also calculated.

New York Comparison Sites: Indiana and Wisconsin

Indiana. Almost all of the requests for reviews in Indiana were filed by beneficiaries or their relatives. Most of the requests for reviews concerned disputes over payment, most of which pertained to the issue of covered services under the Medicare program. About a third of the requests concerned the reasonable charge methodology. The amounts of dispute in most cases were under $100, several cases involved amounts in the $100 to $400 range, and several between $1,000 and $4,000.

Two-thirds of the review requests included copies of the EOMBs. Other types of documentation included in the requests were diagnoses, medical information from the beneficiaries, and itemized bills. Comments by beneficiaries and their relatives concerned the Medicare program, other insurance they held, such as Medicare supplemental insurance, and their medical conditions. One relative stated that it was impossible to understand the method that was used to process the claim in question.

In comparing the characteristics of the initial claims with the initial EOMBs, we encountered a problem concerning the legibility of the forms and since one-fifth of the cases were not complete, characteristics could not be compared for those cases. Within the remaining group, there was a high rate of agreement in regard to procedure codes and dates of services. Although most of the claims were submitted by providers (on HCFA 1490 forms), the assignment rate was very low; almost no assigned claims were in the sample. Since over two-thirds of the sampled cases did not include copies of the carrier's responses to the review requests, we had a much smaller sample of reply correspondence to examine for clarity. Of those cases that contained copies of the carrier responses, the majority were moderate in regard to level of customization. Furthermore, some of the letters were missing addressee name and address.

Wisconsin. Just over one-half of the requests for review were filed by providers and about one-third were from beneficiaries. Most of the review requests included copies of EOMBs.

The disputes over payments concerned covered services and the reasonable charge methodology. In general, the amounts disputed were less than $100. Several requests were about amounts in the $100 to $500 range and one request was in regard to a dispute of $2,000.

Among the documentation submitted with the review requests, there were claim forms, diagnoses, itemized bills, and medical information from beneficiaries. In general, the requests for review were clear and legible and, in several cases, comments were made about Medicare and personal circumstances. The emphasis was on financial hardships and covered services.

The comparison of characteristics of initial claims and EOMBs yielded a high rate of agreement overall. Just under one-half of the cases were assigned; however, almost all of the claims were submitted by providers.

Just over two-thirds of the requests resulted in payment adjustments, however, since none of the cases in the sample from Wisconsin included copies of the adjustment EOMBs, no data are presented here.

The level of customization seen in the carrier letters in Wisconsin was very high. We were impressed by the amount of detail and accuracy concerning the claims in question. We were also impressed by the fact that, in some situations, the carrier reviewed charges which were not in question by the beneficiary or provider. The carrier's responses to beneficiaries and providers explained in a rather detailed fashion the Medicare guidelines which influenced the determination and the actions of the carrier. This attribute was not seen in most of the correspondence from other sites with the exception of Minnesota.

Correspondence from both Indiana and Wisconsin earned higher Flesch scores than upstate New York letters. The correspondence from Wisconsin was only slightly higher (14.7 versus 14.1) as compared to Indiana's Flesch score of 16.7. As mentioned earlier, the Wisconsin letters were highly personalized (e.g., "your husband's claim") and pleasant to read. The level of detail was significant in that only Blue Cross and Blue Shield of Minnesota demonstrated a similar pattern in their correspondence.

Indiana's Flesch scores were higher than the average Flesch scores for all other sites in the evaluation. Indiana's scores ranged from 14.1 to 21.9 on the Flesch test. The entire combined text of paragraphs from Indiana earned a 16.7 Flesch score, the reading level equivalent to four years of college. The Kincaid scores for individual paragraphs from Indiana correspondence were also higher than all other sites in the study. The Kincaid score for the combined paragraph test was 15.4.

The highest Flesch score (21.9) was assigned to the following paragraph.

> Under Medicare regulations, the Medicare carriers and medical staff have the responsibility to determine which items or services are reasonable and necessary for the diagnosis or treatment of a specific illness or injury.

The lowest Flesch score was 14.1 (equivalent to second year of college).

> Based on such a review, we have found that we have paid our maximum allowance for the services rendered 3/1/82-3/5/82 for $5.00. Therefore, if there is no additional information to submit, we must uphold our original determination.

Although Wisconsin's Flesch scores were among the lowest of all sites, we had anticipated a lower combined paragraph text score than the 14.7 Flesch score earned. The personal touch (in particular, the use of the pronouns you, our, and we) led us to believe the scores would be lower than the results reported.

The lowest scoring paragraph had a Flesch score of 8.4 (Kincaid, 8.1) and read as follows.

> When we look at a claim a second time, some specially trained people, who had nothing to do with the original decision, look at all the information again. This is how we handled your claim.

The following paragraph earned the highest Flesch score (17.9) in Wisconsin.

> Each year the Health Care Financing Administration furnishes an Economic Index to all Medicare carriers. The Economic Index is a limitation placed on increases in prevailing charges.

5.2.4 Illinois

It is important to emphasize that our sample of correspondence for all sites was for a period after October 1, 1981. We were particularly interested to examine this period in Illinois because it would indicate the quality of EDSF's correspondence under normal circumstances when the difficulties of assuming duties as a carrier were long past. In our sample, less than one-half of the requests for review in Illinois were filed by providers. The remaining portion were from beneficiaries, their relatives, and, in a few cases, from providers for beneficiaries.

Letters accounted for less than one-third of the requests for review and a similar number of requests were filed on HCFA 1964 forms. The remainder of the requests were made on EOMBs. There was a wide variety of reasons stated for the requests for reviews. A substantial number of requests were filed as the result of wrong procedure codes, wrong amounts, wrong description of services, etc. Covered services were an issue for a significant number of inquiries and reasonable charge methodology also prompted some inquiries. Although only a few cases involved deceased beneficiaries, the number was greater in our Illinois sample than in the other sites.

The vast majority of claims involved amounts of dispute of less than $100. Several claims involved amounts in the $100 to $500 range and several in the $2,000 to $2,500 range. Most of the requests included copies of the EOMBs. Some of the other types of documentation provided included diagnoses, medical information from the beneficiaries, operative notes, itemized bills, and in one unusual case, a photograph of the beneficiary showing evidence of the skin ailment.

In general, the requests were clear and legible. The comments made by the beneficiaries and providers about the Medicare program and carrier were critical and negative. Several beneficiaries noted financial hardships as a result of Medicare payments and, in one case in particular the beneficiary noted that the cost of photocopying documentation for the review itself was expensive. One provider unhappily reported that the review request included the third copy of an operative report submitted to the carrier.

There were a significant number of disagreements in procedure codes seen in the comparison of characteristics of the initial claims and EOMBs. Otherwise, the rate of agreement of other characteristics was fairly high. Almost all of the claims had been submitted on HCFA 1490 forms and the majority were submitted by providers. About one-half of the claims were assigned and almost two-thirds of the requests resulted in adjustment payments.

The overall level of customization seen in the carrier responses to the requests for review was low with the exception of a few cases which were rated as moderate or high. Only a few problems were seen in the correspondence in regard to an inappropriate salutation and an incorrect address.

The Flesch grade level score assigned to the text of the top ten stock paragraphs was 15.2 and the Kincaid was 12.9. The highest Flesch score for an individual paragraph was 21.0 (Kincaid, 17.2) for the following paragraph.

> "You will receive reimbursement subject to any unsatisfied deductible along with an Explanation of Medicare Benefits."

The lowest scoring paragraph (Flesch, 11.2 and Kincaid, 9.6) read as follows.

> If you are dissatisfied with the determination, you may request within six months of the date of this notice, a formal hearing before a hearing officer if the amount in question is $100 or more. To meet the $100 limitation, you may combine other claims that have been through the review or re-opening process within six months of the date of this hearing request. This request may be sent to: EDS Federal Corporation, P.O. Box 66184 A.M.F., O'Hare, Illinois 60666, Attention: Fair Hearings Officer.

Table 5.4 displays all of the Flesch and Kincaid grade level scores for Illinois.

Table 5.4: Reading Grade Level Scores for Illinois

	Individual Paragraphs										All Paragraphs
Index	1	2	3	4	5	6	7	8	9	10	Combined
Flesch	11.2	17.2	17.7	21.0	16.8	14.7	15.5	14.9	15.3	16.2	15.2
Kincaid	9.6	15.4	13.2	17.2	13.0	12.0	15.2	13.4	13.9	16.1	12.9

Illinois Comparison Sites: Nationwide and Occidental

Nationwide. Beneficiaries initiated over half of the requests for review in Ohio. The providers submitted only one-fourth of the requests in the sample. The remainder were from relatives and providers on behalf of the beneficiaries. The requests for review were filed primarily on letters and HCFA 1964 forms (approximately one-third each). The remaining one-third were on EOMBs or duplicate claim forms. Most of the requests were about covered services under the Medicare program or the reasonable charge methodology. A few cases involved wrong procedure codes, wrong provider codes, duplicate payment and overlooked charges.

Most of the amounts disputed were less than $100, a few were around $500, and several were in the $1,000 to $2,000 range. Most of the requests included copies of EOMBs. Other types of documentation seen were itemized bills, diagnoses, operative notes, medical information from beneficiaries, and prevailing charge reports from several providers.

The inquiries were clear and legible and about one-fourth of the requests included comments about Medicare, the carrier, and personal circumstances of beneficiaries. Financial and medical hardships were mentioned in the correspondence and most comments were negative and critical of the Medicare program.

In regard to the characteristics on the initial claims and EOMBs, the rate of agreement was not as high overall as seen in the other sites. Most commonly, the procedures codes did not agree. In some cases, there was disagreement on provider IDs, type of service, and date of service. Most of the claims submitted were on HCFA 1490 forms. Only one in four claims was assigned. The assignment rate was the lowest seen in all of the sites. It is interesting to note, however, that over two-thirds of the claims were filed by providers. Although copies of adjustment EOMBs were not in file, the responses from the carrier indicated that just over half of the informal reviews resulted in adjustment payments.

The overall level of customization seen in carrier responses in Ohio were moderate. A considerable number of letters were rated high in regard to customization. The correspondence shows a significant number of inappropriate responses and errors, such as incorrect address, responding to a request for a detailed explanation with a form letter, etc.

Occidental. The sample of informal review correspondence received from southern California was less complete than at other sites. Approximately two-thirds of the requests for review were filed by providers. The beneficiaries accounted for most of the remainder with a few from representatives and the Social Security office. Letters accounted for over half of the requests and about one-fourth of the requests were filed on HCFA 1964 forms.

A significant number of requests concerned the reasonable charge methodology and a considerable number of cases concerned incorrect payments due to wrong number of services. It is interesting to note that the EOMB in southern California does not have a field for "number of services" on the form; there may be some correlation between that factor and the number of errors seen, especially since no other site had a significant problem in "number of services." Other issues raised included wrong procedure codes and checking on the status of a claim.

The amounts of disputes seen in the correspondence were generally in the $100 to $500 range and about half of the requests for reviews included copies of the EOMBs. Other documentation submitted included operative notes, diagnoses, claim forms, and medical information from the beneficiaries.

In general, the inquiries were clear and legible and comments received in addition to the request mainly focused on what the beneficiary or provider had perceived as an inadequate payment of the claim (reasonable charge methodology).

Within the cases for which the initial claims and EOMBs were present (about one-third of the sample), the overall rate of agreement was very high and it appears that the assignment rate will be over 50 percent based on the documentation. It also appears that over half of the requests for review resulted in adjustment payments.

Correspondence from Occidental was judged as moderately customized overall. One of the problems noted was that female inquirers received letters with inappropriate salutations (such as "Dear Sirs").

The Flesch grade level scores of the full text of each of the comparison sites were only slightly lower (Nationwide, 14.7 and Occidental, 14.9) than the 15.2 score for Illinois.

Nationwide's Flesch scores ranged from a low of 6.0 to a high of 21.8. The text of the low scoring paragraph from Nationwide was as follows.

> "We have received your request for a review of the claim for Dr. John Smith."

The high scoring (21.8 Flesch and 26.9 Kincaid) paragraph explained part of the reasonable charge guidelines.

> The Medicare allowed amount for a specific service in the absence of unusual medical complication or circumstances may not exceed the lowest of a) a physician/supplier's customary charge, b) the

> prevailing charge made for similar services in the locality, or c) the actual charge for the physician/supplier rendering the service.

Correspondence from Occidental was often sent on a form letter (with space provided for free text) to inform the beneficiary that the original determination was incorrect and that an additional allowance would be made for those cases that required adjustments. A substantial number of letters explained Medicare guidelines on reasonable charge methodology.

The lowest Flesch score determined for correspondence from Occidental was 9.6.

> Your request may be sent either to this office or to any Social Security Office. The people in these offices will be glad to assist you in requesting a hearing.

The highest Flesch score (18.7) was for the following paragraph.

> Medicare allowances for anesthesia services are based, primarily, on the type of surgical procedure performed, the time spent by the surgeon, and the prevailing fee for rendering surgery.

Table 5.5 highlights the Flesch and Kincaid scores for correspondence from Nationwide and Occidental.

Table 5.5: Reading Grade Level Scores for Nationwide and Occidental

	Individual Paragraphs										All Paragraphs Combined
Index	1	2	3	4	5	6	7	8	9	10	
Nationwide											
Flesch	13.5	15.5	15.9	21.8	7.3	17.3	14.5	11.5	6.0	15.2	14.7
Kincaid	12.6	14.5	14.7	26.9	8.0	13.4	11.0	9.8	4.4	11.2	12.2
Occidental											
Flesch	11.8	9.6	15.8	12.8	16.7	10.8	17.2	18.7	16.4	17.3	14.9
Kincaid	11.5	8.3	12.2	11.1	12.5	6.9	12.2	18.1	11.2	13.5	11.1

5.3 Readability of "Your Medicare Handbook" and a Medicare Supplemental Insurance Policy

Medicare beneficiaries receive and rely upon a publication prepared by the Social Security Administration to explain what Medicare is and how it works. SSA publication number 05-10050, entitled Your Medicare Handbook, has 62 pages and is printed in large, easy-to-read type.

A sample of ten paragraphs (every fifteenth paragraph in the handbook) was selected and tested for readability with the Flesch and Kincaid scoring program used for the informal review correspondence.

The Flesch score for all paragraphs combined was 13.5 and the Kincaid was 11.2. The easiest-to-read paragraph, which follows, scored a 7.4 on the Flesch test (Kincaid, 5.6).

> The card also shows your health insurance claim number. The claim number has 9 digits and a letter. In some cases, there will be another number after the letter. Be sure to put your full claim number on all Medicare claims and correspondence. If a husband and wife both have Medicare, they get separate cards and different claim numbers. Each must use the exact claim number shown on his or her card.

The highest scoring paragraph earned a 20.6 Flesch and a 17.5 Kincaid.

> Suppliers are persons or organizations, other than doctors or health care facilities, that furnish equipment or services covered by medical insurance. For example, ambulance firms, independent laboratories, and organizations that rent or sell medical equipment are considered suppliers.

It is interesting to note that the combined Flesch score (13.5) for Your Medicare Handbook was lower than the majority of informal review correspondence generated by carriers, although low-scoring Indiana was very close (13.6).

Another appropriate document we selected for comparison of readability was a Medicare Supplemental policy available in Massachusetts--MEDEX 3. State regulations require that the policy earn a minimum raw Flesch score of 50. According to the State Insurance Department in Massachusetts, the certificate affixed to the MEDEX 3 policy on file states that the policy scored 50.1 on the Flesch test. That score converts to a 12.9 grade level.

In summary, there may be some question as to whether the majority of Medicare beneficiaries can easily understand the Medicare handbook and their supplemental insurance policies in addition to any correspondence they may receive from an informal review.

5.4 Comparison of Indicators of Correspondence Handling Across Sites

In reviewing correspondence from each site a formal scoring system was used so that comparisons could be made across sites on key indicators of carrier performance. The score sheet is shown as Exhibit 5.1. In this section, we review the following indicators of performance based on the sample of approximately 60 inquiries per carrier:

- specific precipitating reasons for inquiry--this may reflect areas of claim processing which are particularly weak or strong (e.g., prone to error or not);
- speed of correspondence disposition by the carrier;
- quality of carrier disposition of inquiry; thoroughness and readability with which inquiry was handled; and
- extent of negative remarks by inquirers about the carrier or the program.

These indicators are reviewed in the following sections based on the samples of correspondence from each of the sites. Our approach in presenting these data rests mainly on tabulations by site. More detailed

Exhibit 5.1 Medicare Part B Informal Review Correspondence Review Form

Abt Associates Inc.
55 Wheeler Street
Cambridge, MA 02138

MEDICARE PART B INFORMAL REVIEW
CORRESPONDENCE REVIEW FORM

Contract No. HCFA-500-81-0041

A. Abt ID No. __|__ __|__|__
B. HIC No. __|__|__ __|__ __|__|__|__ __|__
C. Form __ of __ Sex: ____

D. Total pieces of correspondence from inquirer ____________
E. Total pieces of correspondence from respondent ____________

F. File incomplete ____________

G. Problems/Comments

1. KEY DATES

		Not indicated	Illegible
Initial inquiry	__/__/__	1	2
Received	__/__/__	1	2
Initial response	__/__/__	1	2
Last date in file	__/__/__	1	2

2. INQUIRY BY
- Beneficiary. . . 1
- Relative 2
- Provider 3
- Provider (for beneficiary). . 4
- Social Security. . . . 5
- Congressional Inq. . . 6
- Ombudsman. 7
- Other (SPECIFY). . . . 8 ____________

3. INQUIRY FORMAT
- HCFA 1964. . . . 1
- EOMB 2
- Letter 3
- Other (SPECIFY). . . . 4

4. TYPE OF INQUIRY (CIRCLE ALL THAT APPLY)
- Status of previous claim 1
- Dispute over services received/not rec'd . . . 2
- Deceased beneficiary 3
- Dispute over payment:
  - deductible 4
  - coinsurance. 5
  - overpayment. 6
  - covered services 7
  - assignment status. 8
  - reasonable charges 9
  - wrong payee. 10
  - wrong procedure code (provider). 11
  - wrong procedure code (carrier) 12
  - other (SPECIFY)____________________. .13
  - medical necessity. 14
  - eligibility. 15
  - general inquiry. 16
  - review requested (reason not specified). . .17
  - unclear/not specified. 18
  - other (SPECIFY)____________________. .19

8B. TYPE OF PROCEDURE CODE
- CPT-4. 1
- CRVS 2
- Not coded. 3
- Unidentifiable 4
- Cannot determine 5

5. AMOUNT OF DISPUTE
Dollar amount disputed by inquirer by inquirer $__|__|__|__|.__|__
Dollar amount of adjustment $__|__|__|__|.__|__

6. INFORMATION PROVIDED BY INQUIRER
- EOMB (SKIP TO RESPONSE 9) 1
- HIC or SS No. 2
- Provider No. 3
- Date(s) of service 4
- Place(s) of service 5
- Type of service 6
- Provider name, address 7
- Beneficiary name, address 8
- Billing/payment amounts 9
- Previous claims information . . .10
- Other documentation (SPECIFY) . .11

7. QUALITY OF INQUIRY

	YES	NO
Point of inquiry is clear	1	2
Legible	1	2
Positive remarks: provider	1	2
Negative remarks: provider	1	2
Other remarks: provider	1	2
Positive remarks: carrier	1	2
Negative remarks: carrier	1	2
Other remarks: carrier	1	2
Editorial remarks:Medicare	1	2
Remarks: personal circumstances (SPECIFY)	1	2
Other (SPECIFY)	1	2

8A. CHARACTERISTICS OF INITIAL CLAIMS AND EOMB
Note: If correspondence is not initial claim, SKIP to Q. 9
1=agrees, 2=disagrees, 3=N/A, 4=cannot determine
- Beneficiary name . . . ____
- Beneficiary address. . . ____
- Provider name. . . . . . ____
- Provider address . . . . ____
- HIC No. . . . . ____
- Provider ID No. . . . . ____
- Date(s) of service . . . ____
- Type(s) of service . . . ____
- Procedure code(s). . . . ____

Claim Format: Tape/1490/1491/1500/1554/1556/ Other (SPECIFY) ____________

Claim submitted by:
- beneficiary. 1
- provider 2
- other (SPECIFY). . . . 3____________

	YES	NO
Assigned:	1	2

9. SUBSEQUENT EOMBS

	YES	NO
In file?	1	2

10. CARRIER RESPONSE TO MAJOR ISSUE 11. SECONDARY ISSUES

N/A? __ (check)

	10. Yes	10. Part	10. No	11. Yes	11. Part	11. No
Correct citation of claim information	1	2	3	1	2	3
Reply states original determination correct	1	2	3	1	2	3
Reply states adj. made.	1	2	3	1	2	3
HIC No. correct . .	1	2	3	1	2	3
Major issue addressed	1	2	3	1	2	3
Correct programs cited	1	2	3	1	2	3
Carrier action clearly stated. .	1	2	3	1	2	3
Reply advises re: rights.	1	2	3	1	2	3

Comments. . . . . . ____________________

Level of Customization. . . . ____ ____
1=high, 2=moderate, 3=low

breakdowns of responses (by type of claim or type of inquirer) would not be reliable due to the small sample size.

5.4.1 Specific Reasons for Inquiry

Inquiries were submitted for numerous reasons, most concerning factors bearing on level of Medicare payment. Table 5.6 shows how the nature of inquiries differed across sites. While there are differences across sites, there are few indications that the fixed price carriers are experiencing processing problems that would be reflected in the content of inquiries. Some of the findings from Table 5.6 are:

- fixed price carriers are certainly not experiencing correspondence with more multiple complaints;
- complaints about reasonable charge determinations are probably less frequent in the experimental sites; and
- there are indications in Maine and upstate New York that the frequency of complaints about carrier coding is higher--the frequency of these coding problems is, however, quite small and was not indicated in Illinois (where allegations of processing problems concerning coding were made).

It is not possible to conclude from these data that fixed price contracts have been instrumental in changing operations to the point of being reflected in the types of inquiries carriers are receiving.

5.4.2 Timeliness of Carrier Response

Two measures of timeliness were constructed:

1. date of initial inquiry to final date in the file (this is a surrogate for the time span for reaching closure); and
2. date of initial inquiry to the date of the initial carrier response.

Table 5.7 shows three statistics computed for each measure for each site: the average number of days, the median number of days (e.g., exactly half of

Table 5.6: Issues Raised in the Correspondence

Item	Percent								
	Maine	Nebraska	Minnesota	Upstate New York	Indiana	Wisconsin	Illinois	Nationwide	Occidental
1. Status of prior claim	0	0	0	3	1	0	0	1	5
2. Dispute over services	0	0	1	0	0	0	0	3	0
3. Deceased beneficiary	0	2	8	1	3	4	4	3	1
4. Payment-deductible	0	0	0	0	0	0	3	0	0
5. Payment-overpay	0	0	0	1	0	0	0	3	0
6. Payment-covered services	12	23	32	12	43	40	23	26	15
7. Payment-assignment status	2	2	0	1	0	1	0	1	0
8. Payment-reasonable charges	15	47	35	23	23	29	23	26	34
9. Payment-code/provider	6	2	1	8	0	1	0	0	3
10. Payment-code/carrier	17	4	0	8	0	0	3	5	5
11. Payment-other	29	2	1	7	10	9	10	12	19
12. Medical necessity	3	6	3	3	6	0	8	1	0
13. Eligibility	0	0	0	1		0	0	1	0
14. Other	15	14	18	30	14	15	25	16	18
Number with multiple issues	8	5	20	16	1	21	20	28	21

Table 5.7: Timeliness of Correspondence Handling

Item	Number of Days								
	Maine	Nebraska	Minnesota	Upstate New York	Indiana	Wisconsin	Illinois	Nationwide	Occidental
Time to Closure									
1. Average number of days	29	22	24	44	35	39	17	26	26
2. Median number of days	24	16	19	34	36	30	15	21	18
3. 90th percentile	56	55	71	85	134	83	30	57	45
Time to Initial Response									
1. Average number of days	7	16	19	24	31	28	14	25	20
2. Median number of days	19	14	15	21	32	30	14	20	18
3. 90th percentile	51	25	37	43	76	67	22	41	34

the inquiries were processed faster than the median); the 90th percentile (exactly 90 percent of the inquiries were processed faster than this).

The data show that in both Maine and upstate New York correspondence handling times are comparable to the comparison sites. Handling times in Illinois (EDSF) are generally better than the large comparison carriers, and better than all other carriers we studied.

5.4.3 Quality of Carrier Inquiry Dispositions

The accuracy and thoroughness of the carrier's handling of inquiries is the most critical performance area. Our review of correspondence in this respect was based on the following indicators of accuracy and completeness:

- whether the carrier cites the correct (disputed) item on the claim (or not);
- whether the carrier properly identified the HIC number (or not);
- whether the carrier addressed the major issue being raised by the inquiry (or not);
- whether the carrier cites the correct program rule (or not);
- whether the carrier's actions in response to the inquiry are clearly stated (or not); and
- whether the response advises inquirers of their rights under the program (or not).

These items were recorded for each of the major issues raised in the correspondence and the secondary issues (if any). Data are reported in Table 5.8 on these items for only the major or principal issue--the number of secondary and tertiary issues is too small for site specific summaries to be reliable.

Table 5.8 also contains information on the degree of "customization" of carrier responses--a possible surrogate for the extent to which the carrier's response was a complete and direct disposition of issues raised by the inquiry.

Table 5.8: Quality of Carrier Disposition (Percent With Fully Satisfactory Treatment)

Item	Maine	Nebraska	Minnesota	Upstate New York	Indiana	Wisconsin	Illinois	Nationwide	Occidental
1. Correct citation of claim information	95	16	20	70	43	89	85	51	63
2. Correct HIC number	97	80	82	95	50	98	100	83	76
3. Major isse addressed	84	76	73	81	46	98	97	75	73
4. Correct rule stated	97	75	80	84	52	100	100	73	76
5. Action clearly stated	97	77	80	91	51	100	98	83	73
6. Analyses of rights	98	75	78	86	51	100	100	69	73
Average score	95	67	69	85	49	98	97	72	72
Percent of inquiries where point is clear	93	85	95	89	90	98	87	97	94
Percent with high level of correspondence customization	2	7	45	16	10	9	5	24	23

In general, we find the performance of experimental carriers to be better than the comparison carriers. For both Maine and Illinois, performance was better on every indicator of correspondence quality than both comparison sites. In the case of upstate New York, the experimental carrier's performance is always better than one comparison site (Indiana) and never better than the other comparison site (Wisconsin). We should note that the poor performance of some (nonexperimental) carriers may be a direct outcome of abatement policies recently initiated by HCFA to reduce carrier costs.

We should also note that the sites with poorer performance are not suffering from undue lack of clarity in the inquiry (which could explain a confused response). Table 5.8 shows the percentage of inquiries where the issue of disagreement is clearly stated; in every site over 85 percent of the correspondence is quite clear.

There are no other obvious patterns in the data relating to carrier size or location. Interestingly, however, the data indicate that carriers showing high (low) performance on one indicator always show high levels (low levels) of performance on the other indicators. It is possible that this may result from different sampling approaches across sites.[1] In Indiana, for example, where performance was poorest, we find that the file of sample claims relative to other sites was dominated by beneficiary inquiries. There is, however, no obvious, systematic relationship between the performance data and the characteristics of the sampled correspondence (see Table 5.1 for these differences in the sample data).

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[1] That is, Maine, upstate New York, Illinois, and Wisconsin may have culled correspondence that was more accurately handled.

We do find large differences in the "extent of customization." The experimental sites show more routine use of "standard" or "canned" language. There is, however, no obvious relationship between extent of standardization and the indicators of quality. Maine and Illinois seem to tailor correspondence very rarely, yet have top quality scores. Wisconsin, on the other hand, also has top quality scores and almost always constructs tailored or individualized responses. Consequently, it appears from these data that neither fixed price incentives nor correspondence automation is a barrier to accurate and complete correspondence disposition.

5.4.4 Indications of Negative Remarks

A qualitative indicator of carrier performance is the frequency of complaints about the carrier's performance and/or complaints about the program itself; while the latter is not a fair indication of carrier performance, differences in frequency of complaints across carriers may signal variations in the quality of program stewardship.

The frequency of negative remarks found in the correspondence sample is shown in Table 5.9. There is no indication that the performance of experimental carriers has been worse than other sites; generally, complaints are found in 10-13 percent of all correspondence. Performance may even be better than comparison sites for Maine and upstate New York. Interestingly, in Maine we found no written complaints--though this may be an artifact of the peculiar mix of inquiries in this state (90 percent came from providers and only 10 percent from beneficiaries).

5.5 Summary

The review of correspondence quality does not suggest any adverse effects of fixed price contracting for Part B administration; readability is

Table 5.9: Remarks

	Percent of Inquiries								
Item	Maine	Nebraska	Minnesota	Upstate New York	Indiana	Wisconsin	Illinois	Nationwide	Occidental
Frequency of negative remarks about carrier	0	3	3	3	6	2	6	3	6
Frequency of negative remarks about Medicare	0	7	9	3	6	11	6	10	2
Frequency of negative remarks about carriers, Medicare, or both	0	10	12	6	12	13	12	13	8

no worse, quality of carrier response is no worse, and adverse comments are no more frequent. Table 5.10 summarizes findings across sites. There are indications, however, that the fixed price carriers do suffer from a distinct set of problems, as seen by the patterns of problems which precipitated the reviews. These carriers were regularly (in 1981) confronted with correspondence showing apparent errors in coding. In the case of the comparison sites, reasonable charges or covered services were most likely to be the dominant issues. This finding is consistent with transition-oriented difficulties surrounding coding system conversion.

Other findings from the review of correspondence quality include the following.

- For all nine carriers, reading levels are consistently too high for easy comprehension. Paragraphs explaining reasonable charge methodology are typically the most difficult to convey simply. The complexity of Medicare regulations is the main cause of hard-to-read correspondence.
- In most sites, considerable numbers of problems and errors were observed in the disposition of review requests. The most prevalent problem was failure to address secondary questions.
- Instances of standard forms used by carriers that do not contain certain items of information are often associated with incomplete files or erroneous disposition of correspondence (e.g., see discussion of EOMB for Occidental and forms used by Mutual of Omaha).

Table 5.10: Summary of Correspondence Quality Findings

Site/Carrier	All Paragraph Score Flesch	Major Issue in Correspondence	Dominant Source	Quality of[1] Carrier Response	Frequency of Adverse Comments
Maine	15.6	Incorrect payment; resulting from erroneous procedure code	Providers/ assigned	95	None
Mutual of Omaha	13.6	Incorrect payment; reasonable charge and coverage	Providers	67	10 percent
Minnesota	15.0	Incorrect payment; reasonable charge and coverage	Beneficiaries	69	12 percent
New York	14.1	Incorrect payment; coding and processing errors	Providers	85	6 percent
Indiana	16.7	Incorrect payment; covered services and reasonable charge	Beneficiaries	49	12 percent
Wisconsin	14.7	Incorrect payment; covered services and reasonable charge	Providers	98	13 percent
Illinois	15.2	Incorrect payment; coding error, covered services	Beneficiaries	97	12 percent
Nationwide	14.7	Incorrect payment; covered services and reasonable charge	Beneficiaries	72	13 percent
Occidental	14.9	Incorrect payment; reasonable charge and number of services	Providers	72	8 percent

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[1] Average of six quality indicators in Table 5.8.

BIBLIOGRAPHY

Abt Associates Inc., Evaluation Report for the Medicare Part B Fixed Price Experiment in Illinois, for the Health Care Financing Administration, contract no. HCFA-81-0041, March 1983.

Abt Associates Inc., Evaluation Report for the Medicare Part B Fixed Price Experiment in Maine, for the Health Care Financing Administration, contract no. HCFA-81-0041, March 1983.

Abt Associates Inc., Evaluation Report for the Medicare Part B Fixed Price Experiment in Upstate New York, for the Health Care Financing Administration, contract no. HCFA-81-0041, March 1983.

Baumol, William J., John C. Panzar, and Robert D. Willig, Contestable Markets and the Theory of Industry Structure, (New York: Harcourt Brace Jovanovich, 1982).

Blair, Roger D., Jerry R. Jackson, and Ronald J. Vogel, "Economies of Scale in the Administration of Health Insurance," Review of Economics and Statistics, 57(May 1975): 185-9.

Blair, Roger D., Paul B. Ginsburg, and Ronald J. Vogel, "Blue Cross-Blue Shield Administration Costs: A Study of Non-Profit Health Insurers," Economic Inquiry, Volume XIII, June 1975.

Blair, Roger D. and Ronald J. Vogel, The Cost of Health Insurance Administration, Lexington Books, D.C. Heath and Company, Lexington, MA, 1975.

Drummond, Douglas J. and A. Ronald Gallant, "TSCSREG: A SAS Procedure for the Analysis of Time Series Cross-Section Data," SAS Institute Inc., January 25, 1979.

Frasca, Peter and Kai Leung, Medicare Regional Processing Feasibility Study, (final report to the U.S. Health Care Financing Administration under contract 600-76-111, Systems Architects Inc., Randolph, MA, October 1977).

Frech III, H. E., "The Property Rights Theory of the Firm: Empirical Results from a Natural Experiment," Journal of Political Economy, Volume 84, No. 1, 1976.

Fuller, Wayne A. and George E. Battese, "Estimation of Linear Models with Crossed-Error Structure," Journal of Econometrics, Volume 2, 1974.

Hausman, Jerry A. and William E. Taylor, "Panel Data and Unobservable Individual Effects," Econometrica, Vol. 49, No. 6, November 1981.

Hausman, Jerry A. and David A. Wise, "A Conditional Probit Model for Qualitative Choice: Discrete Decisions Recognizing Interdependence and Heterogeneous Preferences," Econometrica, Vol. 46, 403-426.

Hays, Robert D. "Differential Organizational Patterns of Blue Cross-Blue Shield and Commercial Insurers for Competition in the Market for Group Health Insurance," unpublished doctoral dissertation, Vanderbilt University, 1981 (University Microfilm International No. 8206108).

Hsiao, William, "Public Versus Private Administration of Health Insurance: A Study in Relative Economic Efficiency," Inquiry, Volume XV, December 1978.

Johnston, J. Econometric Methods, 2nd ed., New York, McGraw Hill, 1972.

Manchester, Paul B., "The Short-Run Supply of a Nurse's Time: A Comment," The Journal of Human Resources, Volume XI, No. 2, Spring 1976.

National Underwriter Company, 1981 Argus Chart of Health Insurance, 83rd edition.

Paringer, Lynn, "Medicare Assignment Rates of Physicians: Their Responses to Changes in Reimbursement Policy," Health Care Financing Review, Winter 1980.

Parks, Richard W., "Efficient Estimation of a System of Regression Equations When Disturbances are Both Serially and Contemporaneously Correlated," American Statistical Association Journal, June 1967.

Pindyck, R.S., D.L. Rubinfeld, Econometric Models and Economic Forecasts, McGraw-Hill, Inc., 1976.

Sloan, Frank, Janet Mitchell, Jerry Cromwell, "Physician Participation in State Medicaid Programs," Journal of Human Resources, Volume XIII, Supplement 1978.

Sloan, Frank and Bruce Steinwald, "Physician Participation in Health Insurance Plans: Evidence on Blue Shield," Journal of Human Resources, Volume XIII, No. 2, Spring 1978.

Tseng, Kuo-cheng, "Administrative Costs of Medicare Contractors: Blue Cross Plans Versus Commercial Intermediaries," Inquiry, Volume XV, December 1978.

U.S. Department of Health, Education, and Welfare, Report to the Secretary of Health, Education, and Welfare and the Commissioner of Social Security by the Advisory Committee on Medicare Administration, Contracting and Subcontracting ("Perkins Committee"), MACS-1 (6-74), June 21, 1974.

U.S. Department of Health and Human Services, Health Care Financing Administration, Medicare Contractors' Conference Report, March 10-11, 1980.

U.S. General Accounting Office, Analysis of Variations in Claims Processing Costs of Fiscal Agents for CHAMPUS, HRD-77-93, June 8, 1977.

U.S. General Accounting Office, More Can Be Done to Achieve Greater Efficiency In Contracting for Medicare Claims Processing, HRD-79-76, June 29, 1979.

U.S. General Accounting Office, Medicaid Insurance Contracts--Problems in Procuring, Administering and Monitoring, HRD-77-106, January 23, 1978.

U.S. General Accounting Office, Performance of CHAMPUS Fiscal Intermediaries Needs Improvement, HRD-81-38, February 2, 1981.

U.S. General Accounting Office, Statement of Gregory J. Ahart, Director, Human Resources Division, before the Subcommittee on Health, Committee on Finance, U.S. Senate on The Use of Competitive Fixed Price Contracting in Medicare, December 3, 1981.

U.S. General Accounting Office, Review of Alleged Questionable Actions by EDSF to Reduce its Claims and Correspondence Backlogs Under its Medicare Contract in Illinois, HRD-81-44, Gregory Ahart, December 16, 1980.

U.S. General Accounting Office, Report to the Congress, Performance of CHAMPUS Fiscal Intermediaries Needs Improvement, HRD-81-38, February 2, 1981.

U.S. General Accounting Office, Report by the Comptroller General, Experiments Have Not Demonstrated Success of Competitive Fixed-Price Contracting in Medicare, HRD-82-17, December 1, 1981.

U.S. General Accounting Office, Report by the Comptroller General to the Congress, Improving Medicare and Medicaid Systems to Control Payments for Unnecessary Physicians' Services, GAO/HRD-83-16, February 8, 1983.

U.S. House of Representatives, Experimental Medicare Claims Processing Contract, report by the Subcommittee on Health, Washington, D.C. April 28, 1980.

U.S. Senate, Health Care for Older Americans: The "Alternatives" Issue, Part 2, report by the Special Committee on Aging, Washington, D.C. May 17, 1977.

U.S. Senate, Competitive Contracting for the Administration of Medicare Claims, report by the Subcommittee on Health, Washington, D.C. December 3, 1981.

APPENDIX B

Survey Instruments

Survey of Providers

Survey of Beneficiaries

Abt Associates Inc.
55 Wheeler Street
Cambridge, MA 02138

OMB Approval Number 0938-0190
Expires March 1983

Case I.D.# _ _ _ _ _ _

1-6/
7/1

Telephone Survey
of
Medicare Part B Providers

Notice: This survey is authorized by law (42 U.S.C. 1395b-1[a]). While the respondent is not required to respond, (his/her) cooperation is needed to make the results of the survey comprehensive, accurate, and timely.

Information contained on this form which would permit identification of any individual or business has been collected with a guarantee that personal identification information will be detached from the survey responses to preserve the anonymity of respondents. Information collected in this survey will not be disclosed or released to others, or preserved in a manner that violates anonymity.

Introduction: Hello, may I speak with (**Name of Provider**)? This is (**Interviewer's Name**) calling from Abt Associates in Cambridge, Massachusetts, and we are conducting a survey of professionals in the health care field who deal with the Medicare program. I'd like to speak with (**Name of Provider**) or the person most knowledgeable about Medicare B claims processing during the past several years.

When speaking with qualified respondent, repeat above as needed, and then say: We recently sent (**you/Provider**) a letter explaining the purpose of this survey and the importance of your cooperation to obtain a representative picture of how the Medicare program is handled in your state. Did (**you/he/she**) receive the letter we sent you?

If respondent did not receive letter, provide privacy act disclosures and other information as appropriate.

Say to respondent:
If you have any questions about this survey, I'd be happy to answer them, otherwise I'd like to interview you or the individual on your staff that has been most involved with Medicare Part B billing during the past several years.

If respondent has questions, provide responses in accordance with interview manual. Otherwise, continue with the interview. Record respondent interviewed:

Provider 1 8/
Other (**Specify**) 2

____

Card 1

Time Began: ________ AM PM

RECORD WITHOUT ASKING IF PROVIDER IS OBVIOUSLY A GROUP PRACTICE OR MEDICAL EQUIPMENT SUPPLIER. OTHERWISE, ASK:

1. (Are you/Is PROVIDER) a solo practice, part of a group, or a hospital-based physician?

Solo Practice (SKIP TO Q.2) 1 9/
Group Practice (ASK A) 2
Medical Equipment Supplier (SKIP TO Q.2) . . 3
Hospital-based Physician (SKIP TO Q.2). . . . 4

IF GROUP PRACTICE, ASK:

A. How many physicians are in this group?

Number ________________ 10-12/

---

2. (Have you/Has PROVIDER) been providing health services in (NAME SITE) (DATE)?

INTERVIEWER:	1977 IN MAINE, NEBRASKA
	1979 ALL OTHER SITES

Yes 1 13/
No (TERMINATE AND RECORD ON CALL RECORD SHEET) . . . 2

---

3. In an average week, about how many different (patients/clients) (do you/does PROVIDER) see in this (practice/business) (whether in the office, clinic, hospital, or at home)? (IF GROUP PRACTICE SAY: Include all patients seen by all physicians in the group.)

Number ________________ 14-17/

---

4. In an average week, about how many of these (patients/clients) are covered by Part B of Medicare? (RECORD NUMBER OR PERCENT.) 18-21/

Number ____ or ____ Percent 22-24/

---

5. How many Medicare Part B claims (do you/does PROVIDER) file directly to the carrier in an average week? Don't include any claims filed by the (patients/clients). (RECORD NUMBER OR PERCENT.) 25-28/

Number ____ or ____ Percent 29-31/

IF NONE, SKIP TO Q.10

---

6. (Do you/does PROVIDER) send these claims to (NAME OF CURRENT CARRIER)?

Yes 1 32/
No (CLARIFY BEFORE CONTINUING) 2

Card 1

I'd like to ask you a few questions about the efficiency with which you receive Medicare payments from (NAME OF CURRENT CARRIER).

7. Of the Part B claims which (you/PROVIDER) files in an average week, what percent is paid by the carrier within 30 days? (RECORD BELOW) What percent is paid within 45 days? (RECORD BELOW) Within 60 days? (RECORD BELOW) About what percent of the claims in an average week take more than 60 days for payment? (RECORD BELOW)

Approximate Percent Paid

Within 30 days . . ____ % 33-35.

Within 45 days . . ____ % 36-38.

Within 60 days . . ____ % 39-41/

Over 60 days . . . ____ % 42-44/

ASK ONLY IF LESS THAN 100 PERCENT IS PAID WITHIN 30 DAYS. OTHERWISE, SKIP TO Q.9.

8. At present, what is the total amount of money that the Medicare carrier has owed you for over 30 days? (RECORD BELOW.) For over 60 days? (RECORD BELOW.)

Total owed to provider for more than 30 days $____________________ 45-49/

For more than 60 days $____________________ 50-54/

IF $10,000 OR MORE OWED FOR OVER 30 DAYS, ASK:

A. Has this (your) (practice/business) ever had to do any of the following things because of the Medicare carrier's payment delays? (READ EACH ITEM.)

FOR EACH YES, ASK:

B. How many times has this happened within the past two years? (RECORD BELOW.)

	Yes	No		IF YES: # Times	
Postpone paying nonsalary expenses connected with the (practice/business) .	1	2	55/	_____	56-57/
Postpone paying the salary of (physicians/managers).	3	4	58/	_____	59-60/
Postpone paying the salary of other (practice/business) employees . . .	1	2	61/	_____	62-63/
Increase your regular line of credit borrowing . . .	3	4	64/	_____	65-66/
Take out new short-term loans to cover your expenses	1	2	67/	_____	68-69/
Raise fees	3	4	70/	_____	71-72/
Other (SPECIFY) ____________	1	2	73/	_____	74-75/

____

Card 2
1-6/dup
7/ 2

9. We want to find out the reasons for delays in Medicare Part B payments. I'll read a list of possible reasons for delays, and I'd like you to tell me if you encounter them frequently. (READ EACH ITEM AND CODE ONE RESPONSE FOR EACH.)

	Yes	No	
Beneficiary is deceased	1	2	8/
Form not signed by beneficiary	3	4	9/
Wrong Health Insurance Claim (HIC) number	1	2	10/
Location where services were performed	3	4	11/
Carrier's need for additional information	1	2	12/
Charge screen problems	3	4	13/
Clerical errors on carrier's part . .	1	2	14/
Poor carrier performance in general .	3	4	15/
Poor postal delivery services	1	2	16/
Other reasons (SPECIFY) __________ .	3	4	17/

____

10. (Have you/Has PROVIDER) detected any errors in Medicare Part B payments in the last two years?

Yes (ASK A & B) 1 18/
No (SKIP TO Q.11) 2

IF YES, ASK:

A. About how many times in the last two years did payment errors by (CURRENT CARRIER) initially result in underpayments? (RECORD BELOW.) And how many payment errors initially resulted in overpayments? (RECORD BELOW.)

Number of underpayments in last two years ____ 19-20/
Number of overpayments in last two years ____ 21-22/

B. In the last two years, about how many payment errors did (you/PROVIDER) discover because (READ EACH ITEM AND CODE ONE RESPONSE FOR EACH)?

	Payment Errors	
Carrier calculated wrong allowed charge	____	23-24/
Payments made for deceased beneficiaries	____	25-26/
Payments covered the wrong patients--that is, the payments were for patients not treated by (you/PROVIDER)	____	27-28/
Payments received for unassigned claims	____	29-30/
Printing error on the check	____	31-32/

Card 2

Now I'd like to ask several questions about accepting assignment of Medicare Part B claims.

11. In an average week, about how many Medicare claims (do you/does PROVIDER) accept assignment on?

Number ____________________ 33-36/

---

12. What is (your/PROVIDER'S) policy on accepting assignment? (PROBE. READ LIST ONLY IF NECESSARY: CODE ALL THAT APPLY.)

Accept assignment for all procedures and for all patients(SKIP TO Q.13). 0 37/
Accept assignment only for certain procedures (ASK A) 1 38/
Usually do not accept assignment (ASK A) . . . 2 39/
Never accept assignment (ASK A) 3 40/
Accept assignment when bill is over a certain amount (SPECIFY AMOUNT: $____________ 41-44/
AND ASK A) 4 45/
Accept assignment when bill is below a certain amount (SPECIFY AMOUNT: $____________ 46-49/
AND ASK A) 1 50/
Accept assignment for patients with limited income (ASK A) 2 51/
Accept assignment on the basis of certain patient characteristics (SPECIFY & ASK A)____
______________________________ . 3 52/
Other policies (SPECIFY & ASK A) ____________
______________________________ . 4 53/

A. IF ANY RESPONSES IN Q.12 CODED 1, 2, 3, or 4, ASK:
When (you don't/PROVIDER doesn't) accept assignment for Part B procedures, what is (your/PROVIDER'S) billing and payment policy? (READ LIST ONLY IF NECESSARY: CODE ALL THAT APPLY.)

Payment is requested at time of service . . . 1 54/
Payment is requested only after patient has been given itemized bill 2 55/
Patient is mailed an itemized bill with request for payment wihin 30 days 3 56/
Patient is mailed an itemized bill with request for payment within 60 days 4 57/
Patient is allowed to pay after being reimbursed by Medicare carrier 5 58/
Other (SPECIFY) ______________________ . 6 59/

Card2

---

13. (Have you/Has PROVIDER) made any changes in this assignment policy within the past twelve months?

Yes (ASK A-F) 1 60/
No (SKIP TO Q.14) 2

IF YES, ASK:

A. (Are you/Is PROVIDER) now accepting assignment more often, less often, or with the same frequency with this new policy?

More often 1 61/
Less often 2
About the same 3

B. What are the main reasons why (you/PROVIDER) changed your policy of accepting assignment of Medicare claims? (PROBE)

____ 62-63/
____ 64-65/
____ 66-67/
____

C. Which, if any, of the following factors were important influences in (your/PROVIDER'S) decision to change (your/his/her) assignment policy? (READ EACH ITEM AND CODE ONE RESPONSE FOR EACH.)

	An Important Influence	Not An Important Influence	
Carrier's method of determining customary charges	1	2	68
Carrier's promptness in paying claims . .	3	4	69/
Carrier's accuracy of Medicare Payments .	5	6	70
Carrier's professional relations with physicians and other providers	1	2	71/
Medicare patients' ability to pay for the services not covered by Part B . .	3	4	72/
The kinds of supplementary medical insurance that Medicare beneficiaries usually have	5	6	73

D. Has your new assignment policy increased the number of Medicare patients, decreased their number or not had any effect on the number of Medicare patients that see (you/PROVIDER) in an average month?

Patients increased . . . 1 74/
Patients decreased . . . 2
No change in patient load 3

E. Has (your/PROVIDER'S) new assignment policy improved (your/his/her) cash flow situation, made cash flow more of a problem, or not had any real effect on cash flow?

Improved cash flow . . . 1 75/
Made cash flow more of a problem 2
No effect on cash flow . 3

F. Has (your/PROVIDER'S) new assignment policy increased overhead and staffing costs, decreased (your/his/her) overhead, or had no real effect on overhead costs?

Increased overhead . . . 1 76
Decreased overhead . . . 2
No effect on overhead . . 3

Card 3
1-6 Dup.
7/3

14. Next, I'd like to ask how (your/PROVIDER'S) Medicare (practice/business) compares with (your/his/her) private (practice/business)--that is, (patients/clients) not on Medicare or any other government-assisted health benefit program.

A. Considering only the time and effort in completing forms and filing claims for (patients/clients), how does (your/PROVIDER'S) Medicare (practice/business) compare with (your/his/her) private (practice/business)? Does it take more time and effort per Medicare (patient/client), less time and effort, or about the same amount of time and effort for Medicare (patients/clients) and private (patients/clients)?

More time and effort per Medicare patient . . 1 8/
Less time and effort per Medicare patient . . 2
About the same time and effort 3

B. Thinking about (your/PROVIDER'S) cash flow and promptness of receiving payments, how does (your/PROVIDER'S) Medicare (practice/business) compare with (your/his/her) private (practice/business)? Does your Medicare (practice/business) provide (you/PROVIDER) with a better cash flow situation, makes cash flow more of a problem, or is there no real difference between Medicare and private (practice/business) in the promptness of payments?

Better cash flow with Medicare practice . . . 1 9/
Cash flow more of a problem with Medicare practice 2
No difference in cash flow between Medicare practice and private practice . . 3

C. Compared with (your/his/her) private (practice/business), is the level of payment for services better in (your/his/her) Medicare (practice,/business) worse in (your/his/her) Medicare (practice/business), or (do you/does PROVIDER) receive about the same level of payment in (your/his/her) Medicare and private (practices/businesses)?

Better level of payment in Medicare practice 1 10/
Worse level of payment in Medicare practice . 2
About the same level of payment 3

D. In what (other) ways, if any, is (your/PROVIDER'S) Medicare (practice/business) better than private (practice/business)? (PROBE)

______________________________ 11-12/
______________________________ 13-14/
______________________________ 15-16/

E. In what (other) ways, if any, is (your/PROVIDER'S) Medicare (practice/business) worse than private (practice/business)? (PROBE)

______________________________ 17-18/
______________________________ 19-20/
______________________________ 21-22/

Card 3

---

15. (Have you/has PROVIDER) ever used the toll-free "800" telephone number to contact (CURRENT CARRIER)?

Yes (ASK Q. A-C) 1 23/
No (SKIP TO Q.16) 2

IF YES, ASK:

A. When (you have/PROVIDER has) called this toll-free number, have you had any problems in getting through--for example, frequently getting busy signals, no answers, or being placed on hold for several minutes?

Yes 1 24/
No 2

B. How helpful was the carrier in answering (your/PROVIDER'S) questions or giving information? Would you say the staff was very helpful, somewhat helpful, or not at all helpful?

Very helpful 1 25/
Somewhat helpful 2
Not at all helpful . . 3
Unable to reach carrier . 4

C. About how many times in an average month (have you/has PROVIDER) called this toll-free number?

Number ________________ 26-27/

---

16. All things considered, how important is it for the carrier to provide a toll-free number for handling inquiries from Medicare providers? Would you say it is very important, somewhat important, or not important at all?

Very important 1 28/
Somewhat important . . . 2
Not at all important . . 3

---

17. (Have you/has PROVIDER) ever requested (your/his/her) provider profile, which is a listing of what (your/his/her) customary charges are for each procedure?

Yes (ASK Q. A) 1 29/
No (SKIP TO Q.18) 2

IF YES, ASK:

A. How often (have you/has PROVIDER) requested (your/his/her) profile from (CURRENT CARRIER)?

Twice a year or more often 1 30/
Once a year 2
Once every two years 3
Not on a regular basis, only occasionally . . 4

Card 3

---

18. Overall, how satisfied or dissatisfied (are you/is PROVIDER) with (NAME OF CARRIER´S) performance in processing claims for Part B of Medicare--very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Very satisfied 1 31/
Somewhat satisfied . . . 2
Somewhat dissatisfied . . 3
Very dissatisfied 4
Don´t know
(SKIP TO Q.20) 8

---

19. Compared with a year ago, has (CURRENT CARRIER) become better, remained about the same, or become worse in operating the program?

Now better 1 32/
About the same 2
Now worse 3

Card 3

NOTE THAT QUESTIONS 20-22 ARE TO BE ASKED AT ONLY AT SITES LISTED BELOW.

The next few questions concern the time period when (CURRENT CARRIER) first assumed responsibility for Part B of the Medicare Program, that is during (MENTION YEAR).

Experimental Site*	Current Carrier	Year Began Processing
Maine*	Blue Shield of Massachusetts	1977
Upstate New York* (except Buffalo)	Blue Shield of Western New York	1979
Illinois*	EDSF (Electronic Data Services Federal Corporation)	1979
Milwaukee	Wisconsin Physicians Service (WPS) (also known as Wisconsin Blue Shield)	1979

20. When (CURRENT CARRIER) first assumed responsibility for processing Medicare Part B claims, did it change any procedure codes?

Yes (ASK Q. A) 1 33/
No (SKIP TO Q.21) 2

IF YES, ASK:

A. As best as you can remember, did these changes cause any difficulties for (your/PROVIDER´S) (practice/business)?

Yes (ASK Q. B-E) 1 34/
No (SKIP TO Q.21) 2

IF YES to Q.A, ASK:

B. What kinds of difficulties or problems did the new procedure codes present to (your/ PROVIDER´S) (practice/business)? (PROBE)

____ 35-36/

____ 37-38/

____ 39-40/

____

C. In general, how long did it take for (your/PROVIDER´S) (practice/business) to operate smoothly with the new procedure codes?

Less than one month 1 41/
One month but less than three months 2
Three months but less than six months 3
Six months or more 4
Don´t know 8

D. Did (you/PROVIDER) or one of (his/her/your) staff attend one of the training sessions offered by the carrier concerning the new procedure codes?

Yes 1 42/
No 2
Don´t know 8

E. Did the new procedure codes help, hurt, or have no real impact on (your/PROVIDER´S) (practice/business)?

Positive impact/help. . . 1 43/
Negative impact/hurt. . . 2
No real impact 3

Card 3

21. As compared to when (CURRENT CARRIER) first assumed responsibility for processing Part B claims (IN YEAR), is it now more efficient, now less efficient, or about the same in processing and paying claims?

Now more efficient (ASK Q. A-B) 1 44/
Now less efficient (ASK Q. A-B) 2
About the same (SKIP TO Q. 22) 3

IF MORE OR LESS, ASK:

A. In what ways is (CURRENT CARRIER) (more/less) efficient now than during the initial period? (PROBE)

________________________________ 45-46/
________________________________ 47-48
________________________________ 49-50/
____

B. Were there any (other) problems in the operations of (CURRENT CARRIER) during the initial period that affected your (practice/business) in regard to Medicare beneficiaries?

Yes (ASK Q. C) 1 51
No 2

IF YES IN Q. B, ASK:

C. Please describe these operational problems that (CURRENT CARRIER) had during their initial period of operation. (PROBE)

________________________________ 52-53/
________________________________ 54-55
________________________________ 56-57
____

---

22. Did (you/PROVIDER) change or modify (your/his/her) present policy of accepting assignment during this period?

Yes (ASK Q. A) 1 58/
No (SKIP TO Q.23) 2

IF YES, ASK:

A. In what ways did (you/PROVIDER) change your policy of accepting assignment during this initial period of (CURRENT CARRIER'S) handling of Medicare Part B claims? (PROBE. READ LIST ONLY IF NECESSARY. CODE ALL THAT APPLY.)

Accepted assignment for all procedures 0 59/
Accepted assignment only for certain procedures 1 60/
Usually did not accept assignment 2 61/
Never accepted assignment 3 62/
Accepted assignment when bill was over a certain amount (SPECIFY AMOUNT: $__________) . . . . 4 63-~~66~~/ 67/
Accepted assignment when bill was below a certain amount (SPECIFY AMOUNT: $__________) 1 68-71/ 72/
Accepted assignment for patients with limited income 2 73/
Accepted assignment on the basis of certain patient characteristics (SPECIFY)__________
________________________________. 3 74/
Other policies (SPECIFY)__________________
________________________________. 4 75/

NOTE: THERE ARE TWO VERSIONS OF QUESTIONS 23-27. THE VERSION PRINTED ON BLUE PAGES 11 AND 12 WILL BE ASKED IN ALL OF MAINE, ALL OF ILLINOIS, IN UPSTATE NEW YORK EXCEPT BUFFALO, AND IN MILWAUKEE.

THE VERSION PRINTED ON GOLD PAGES 11 AND 12 WILL BE ASKED IN ALL OF NEBRASKA, WISCONSIN EXCEPT MILWAUKEE, ALL OF SOUTHERN CALIFORNIA, AND IN BUFFALO, (UPSTATE NEW YORK).

REFER TO LIST (POSTED AT YOUR STATION) OF CURRENT AND PREVIOUS CARRIERS FOR EACH SITE.

Card 4
1-6 DUP
7/4

Now I'd like to ask you about (NAME OF PREVIOUS CARRIER) who was the previous Medicare Part B carrier in this state.

ASK ONLY IF SUBSTITUTE RESPONDENT IS ANSWERING FOR PROVIDER.

23. Were you working for (PROVIDER) at the time (PREVIOUS CARRIER) was handling Part B of the Medicare program?

Yes	1	8/
No (SEE NOTE)	2	

*INTERVIEWER NOTE: ATTEMPT TO COMPLETE QUESTIONS 24-27 WITH PROVIDER OR OTHER KNOWLEDGEABLE STAFF.

---

24. When (PREVIOUS CARRIER) was handling Part B claims, did (you/PROVIDER) have the same policy of accepting assignment or has (your/PROVIDER'S) policy changed since then?

Same policy of accepting assignment (SKIP TO Q.25)	1	9/
Policy has changed since previous carrier (ASK Q. A)	2	
Not sure (SKIP TO Q.25)	8	

IF POLICY HAS CHANGED, ASK:

A. What was (your/PROVIDER'S) assignment policy under the previous carrier? (PROBE. READ LIST ONLY IF NECESSARY. CODE ALL THAT APPLY.)

Accepted assignment for all procedures	0	10/
Accepted assignment only for certain procedures	1	11/
Usually did not accept assignment	2	12/
Never accepted assignment	3	13/
Accepted assignment when bill was over a certain amount (SPECIFY AMOUNT: $____________)	4	14-17/ 18/
Accepted assignment when bill was below a certain amount (SPECIFY AMOUNT: $____________)	1	19-22/ 23/
Accepted assignment for patients with limited income	2	24/
Accepted assignment on the basis of certain patient characteristics (SPECIFY)____________ ______________________________________ .	3	25/
Other policies (SPECIFY)____________________ ______________________________________ .	4	26/

Card 4

---

25. As best as you can remember, how did (PREVIOUS CARRIER) compare with (CURRENT CARRIER) in handling Medicare Part B claims? Was (PREVIOUS CARRIER) more efficient, less efficient, or about the same as (CURRENT CARRIER) in processing and paying claims.

More efficient 1 27/
Less efficient 2
About the same 3

---

26. Overall, how satisfied or dissatisfied were (you/PROVIDER) with (PREVIOUS CARRIER'S) performance in processing claims for Part B of Medicare--very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Very satisfied 1 28/
Somewhat satisfied . . . 2
Somewhat dissatisfied . . 3
Very dissatisfied 4
Don't know
(SKIP TO Q.28) 8

---

27. What are the major reasons why (you/PROVIDER) were (satisfied/dissatisfied) with the previous carrier's performance? (PROBE)

____________________________________ 29-30/
____________________________________ 31-32/
____________________________________ 33-34/
____

35/1

REFER TO LIST (POSTED AT YOUR STATION) OF CORRESPONDING DATES FOR CARRIERS FOR EACH SITE.

Now I'd like to ask you about (CURRENT CARRIER)'s Medicare Part B procedures in (CORRESPONDING DATE) compared with now.

Card 4
1-6 DUP
7/4

ASK ONLY IF SUBSTITUTE RESPONDENT IS ANSWERING FOR PROVIDER.

23. Were you working for (PROVIDER) in (CORRESPONDING DATE)?

Yes 1 8/
No (SEE NOTE) 2

*INTERVIEWER NOTE: ATTEMPT TO COMPLETE QUESTIONS 24-27 WITH PROVIDER OR OTHER KNOWLEDGEABLE STAFF.

---

24. In (CORRESPONDING DATE), did (you/PROVIDER) have the same policy of accepting assignment or has (your/PROVIDER'S) policy changed since then?

Same policy of accepting assignment (SKIP TO Q.25) 1 9/
Policy has changed since then (ASK Q. A). . . 2
Not sure (SKIP TO Q.25) 8

IF POLICY HAS CHANGED, ASK:
A. What was (your/PROVIDER'S) assignment policy in (CORRESPONDING DATE)? (PROBE. READ LIST ONLY IF NECESSARY. CODE ALL THAT APPLY.)

Accepted assignment for all procedures 0 10/
Accepted assignment only for certain procedures 1 11/
Usually did not accept assignment 2 12/
Never accepted assignment 3 13/
Accepted assignment when bill was over a certain amount (SPECIFY AMOUNT: $____________) 4 14-17/ 18/
Accepted assignment when bill was below a certain amount (SPECIFY AMOUNT: $____________) 1 19-22/ 23/
Accepted assignment for patients with limited income 2 24/
Accepted assignment on the basis of certain patient characteristics (SPECIFY)____________ ____. 3 25/
Other policies (SPECIFY)________________________ ____. 4 26/

Card 4

25. As best as you can remember, how did (CURRENT CARRIER) handle Medicare Part B claims in (CORRESPONDING DATE) compared with now? Was (CURRENT CARRIER) more efficient, less efficient, or about the same then than now in processing and paying claims?

More efficient 1 27/
Less efficient 2
About the same 3

26. Overall, how satisfied or dissatisfied were (you/PROVIDER) in (CORRESPONDING DATE) with (CARRIER'S) performance in processing claims for Part B of Medicare--very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Very satisfied 1 28/
Somewhat satisfied . . . 2
Somewhat dissatisfied . . 3
Very dissatisfied 4
Don't know
(SKIP TO Q.28) 8

27. What are the major reasons why (you/PROVIDER) were (satisfied/dissatisfied) with the previous carrier's performance in (CORRESPONDING DATE)? (PROBE)

____________________ 29-30/
____________________ 31-32/
____________________ 33-34/
____

35/2

Card 4

BACKGROUND DATA

ASK QUESTIONS 28-30 ONLY IF SUBSTITUTE RESPONDENT IS ANSWERING FOR PROVIDER.

28. What are your title and job responsibilities with (PROVIDER). (OBTAIN FULL DESCRIPTION.)

____ 36-38/

____

---

29. For how long have you been employed by (PROVIDER)?

Less than 1 year	0	39/
1 year but less than 2 years	1	
2 years but less than 3 years	2	
3 years but less than 4 years	3	
4 years but less than 5 years	4	
5 years but less than 6 years	5	
6 years or more	6	

---

30. For how long have you been involved with the handling of Part B Medicare claims (in any provider's practice)?

Less than 1 year	0	40/
1 year but less than 2 years	1	
2 years but less than 3 years	2	
3 years but less than 4 years	3	
4 years but less than 5 years	4	
5 years but less than 6 years	5	
6 years or more	6	

AT COMPLETION OF INTERVIEW, SAY:

Thank you very much for cooperating with this important survey. You've been very helpful.

Time Ended: __________ am / pm

INTERVIEWER: Complete information below.

Interview length in minutes . . . . __ __ 41-42/

Interview was completed on call attempt . . . .# __ 43/

Interview was completed on. . . . . ____ ____ ____ 44-48/
day month date

Interview was completed by Interviewer I.D.# __ __ __ __ 49-52/

Coder I.D.# __ __ __ __ 53-56/

Q.C.'er I.D.# __ __ __ __ 57-60/

Transfer in specialty code __ __ 61-62/

Transfer in provider I.D.#(s)

Abt Associates Inc.
55 Wheeler Street
Cambridge, MA 02138

OMB Approval Number 0938-0190
Expires March 1983

Case I.D.# _ _ _ _ _ _

1-6/
7/1

Telephone Survey
of
Medicare Part B Beneficiaries

NOTICE: This survey is authorized by law (42 U.S.C. 1395b-1[a]). While the respondent is not required to respond, (his/her) cooperation is needed to make the results of the survey comprehensive, accurate, and timely.

Information contained on this form which would permit identification of any individual or business has been collected with a guarantee that personal identification information will be detached from the survey responses to preserve the anonymity of respondents. Information collected in this survey will not be disclosed or released to others, or preserved in a manner that violates anonymity.

INTRODUCTION: Hello, may I speak with (NAME OF QUALIFIED RESPONDENT)? This is (INTERVIEWER'S NAME) calling from Abt Associates in Cambridge, Massachusetts, and we are conducting a survey among people in the Medicare program.

WHEN SPEAKING WITH QUALIFIED RESPONDENT, REPEAT ABOVE AS NEEDED, AND THEN SAY:
We recently sent you a letter explaining the purpose of this survey and requesting your cooperation in this interview. Did you receive the letter we sent you?

IF RESPONDENT DID NOT RECEIVE LETTER, PROVIDE AN EXPLANATION OF THE SURVEY INCLUDING PRIVACY ACT DISCLOSURES.

SAY TO RESPONDENT:
If you have any questions about the survey, I'd be happy to answer them, otherwise I'd like to begin the interview.

IF RESPONDENT HAS QUESTIONS, PROVIDE RESPONSES IN ACCORDANCE WITH INTERVIEW MANUAL. OTHERWISE, CONTINUE WITH THE INTERVIEW.

NOTE: IF SUBSTITUTE RESPONDENT IS BEING INTERVIEWED, BE SURE THAT PERSON ANSWERS QUESTIONS IN TERMS OF THE SAMPLED BENEFICIARY.

Card 1
Contd

AM
Time Began: ________ PM

First of all, I'd like to ask you about your health in general.

1. Compared with other people your age, would you say your health is better, about the same, or worse than theirs?

Better 1 8/
About the same 2
Worse 3

---

2. Have you seen any kind of doctor--for example, a general practitioner, a specialist, an osteopath, or a chiropractor--within the past 12 months?

Yes (ASK Q. A-B) 1 9/
No (CLARIFY
BEFORE CONTINUING). . . 2

IF YES, ASK:

A. In the past 12 months, about how many times have you seen any kind of doctor (MENTION PLACE)? (Your best guess is okay if you can't remember exactly how many times.) RECORD BELOW.

Places	Number of times in last 12 months	
In his office	______	10-11/
In your home	______	12-13/
At a hospital outpatient clinic or emergency room	______	14-15/
While in the hospital as a patient	______	16-17/

B. How many different doctors have you seen in the past 12 months?

Number of different doctors
in past 12 months . . . . . ______ 18-19/

IF ONE DOCTOR IN Q.2B, ASK Q.3A. IF MORE THAN ONE DOCTOR, ASK Q.3B.

3A. When you see your doctor for things covered by Medicare Part B, does your doctor usually send in the bill and claim form to Medicare directly?

Yes (SKIP TO Q.4) 1 20/
No (SKIP TO Q.4) 2

IF MORE THAN ONE DOCTOR, ASK:

3B. When you see these doctors for things covered by Medicare Part B, how many of these doctors usually send in the bill and claim form to Medicare directly?

Number of doctors _____ 21-22/

Card 1 Cont'd

---

4. When you go to any kind of doctor for things that are covered by Medicare Part B, do you, your family, or friends ever have to send in the bill or the claim form to Medicare?

Yes (ASK Q. A-F) 1 23/
No (SKIP TO Q.7) 2

IF YES, ASK:

A. Do you ever have problems filling out the Medicare claim form?

Yes 1 24/
No 2
Don't know/other person . 8

B. Have you ever received help from your local Social Security office in completing the Medicare claim form?

Yes 1 25/
No 2
Don't know/other person . 8

C. Have you ever received help from volunteers or senior citizen centers in completing the Medicare claim forms?

Yes 1 26/
No 2
Don't know/other person . 8

D. Have you ever received help from friends or relatives in completing the claim form?

Yes 1 27/
No 2
Don't know 8

E. The last time you sent in a claim to Medicare directly did you receive your payment (reimbursement) quickly?

Yes 1 28/
No 2
Don't know 8

F. About how many days did it take, the last time you sent in your claim, for you to receive a check from Medicare? (Your best guess is okay if you can't remember exactly how many days.)

Number ____________________ 29-31/

Card 1
Contd.

---

5. During the past 12 months, how many times did you have to pay any kind of doctor before Medicare paid you? (RECORD BELOW.)

During the past 12 months, how many times did you have to pay after Medicare paid you? (RECORD BELOW.)

Number of times paid before ______ 32-33/
Number of times paid after ______ 34-35/

IF HAD TO PAY BEFORE, ASK:

A. When people have medical expenses, they sometimes have to borrow money or pay the bill with money that was set aside for other things. When you have to pay any kind of doctor before Medicare has paid you, have you had to do any of the following things? (READ EACH ITEM AND CODE ONE RESPONSE FOR EACH.)

	Yes	No	
Use money that was set aside for paying your household expenses .	1	2	36/
Not buy prescriptions or medicines you needed	3	4	37/
Borrow money from children or relatives (ASK A1)	1	2	38/
Borrow money from friends (ASK A1).	3	4	39/
Withdraw money from your savings . .	1	2	40/

IF BORROW MONEY FROM FAMILY OR FRIENDS, ASK:

A1. When Medicare finally paid you, did you get enough money back to be able to pay the people you had borrowed from?

Yes 1 41/
No 2

Card 1
Contd.

---

6. Have you ever had to wait more than a month to get paid from Medicare?

Yes (ASK A-D) 1 42/
No (SKIP TO Q.7) 2

IF YES, ASK:

A. Have you had to wait more than a month to get paid from Medicare at any time during the past 12 months?

Yes (ASK A1) 1 43/
No (SKIP TO B) 2

IF YES IN "A," ASK:

A1. How many times did this happen in the past 12 months?

Number of times in past 12 months _____ 44-45/

B. When was the last time this happened? (RECORD MONTH AND YEAR)

Month ______________ Year 19___________ 46-49/

C. How long did you have to wait from the time you sent in your bill until the time that you received your payment from Medicare?

Number of weeks ______ 50-51/

D. Were you waiting to get paid from Medicare in order to pay your doctor's bill?

Yes (ASK Q. D1) 1 52/
No (SKIP TO Q.7). 2

IF YES IN "D," ASK:

D1. Did you avoid going back to this doctor for health services you needed because Medicare had not yet paid you?

Yes 1 53/
No 2

Card 1
Contd.

---

7. Have you ever written to Medicare because you felt they made a mistake or you disagreed with the amount that they paid?

Yes (ASK Q. A-C) 1 54/
No (SKIP TO Q.8) 2

IF YES, ASK:

A. After you wrote to Medicare, were you satisfied with their explanation and review of your case?

Yes 1 55/
No 2

B. Did you ask for a hearing about this disagreement?

Yes 1 56/
No 2

C. Did you feel that this disagreement was settled fairly?

Yes (SKIP TO Q.8) . . . 1 57/
No (ASK Q. C1) 2

IF NO IN "C," ASK:

C1. Did you appeal this settlement?

Yes (ASK Q. C2) 1 58/
No (SKIP TO Q.8) 2

IF YES IN "C1," ASK:

C2. Did you feel that this was settled fairly in the end?

Yes 1 59/
No 2

---

8. Do you sometimes avoid going to the doctor or getting medical advice because you feel that Medicare doesn't pay enough of the doctor's bill?

Yes 1 60/
No 2

Card 1
Contd.

---

9. As far as you know, is there a toll-free "800" phone number that you can call in your area if you want to find out about your Medicare claims?

Yes (ASK Q. A) 1 61/
No (SKIP TO Q.10) 2
Don't know/Not sure
(SKIP TO Q.10) 8

IF YES, ASK:

A. Have you ever called this toll-free number?

Yes (ASK Q. B-D) 1 62/
No (SKIP TO Q.10) 2

IF YES IN "A," ASK:

B. When you have called this toll-free phone number, have you had any problem in getting through? For example, did you keep getting a busy signal, no answer, or were you put on hold for several minutes?

Yes 1 63/
No 2

C. When you called the Medicare phone number, how helpful were the people there in answering your questions or giving you information? Would you say they were very helpful, somewhat helpful, or not at all helpful?

Very helpful 1 64/
Somewhat helpful 2
Not at all helpful . . . 3
Unable to reach anyone. . 4

D. All things considered, how important is it for people like yourself to have a toll-free phone number which you can call when you have any questions about your Medicare claims? Would you say that this toll-free number is very important, somewhat important, or not important at all?

Very important 1 65/
Somewhat important . . . 2
Not at all important . . 3

Card 1
Contd.

---

10. The Social Security Administration makes arrangements with different companies throughout the country to receive the Medicare claim forms and send out the Medicare payment checks.

All things considered, are you satisfied or dissatisfied with the way the company in your area handles your Medicare claims?

Satisfied (ASK Q. A) . . 1 66/
Dissatisfied (ASK Q. A) . 2
Don't know, no opinion (SKIP TO Q.11) 8

IF SATISFIED OR DISSATISFIED, ASK:

A. Are you very (satisfied/dissatisfied) or somewhat (satisfied/dissatisfied) with the way they handle your claims?

Very satisfied 1 67/
Somewhat satisfied . . . 2
Somewhat dissatisfied . . . 3
Very dissatisfied 4
Don't know, no opinion . 8

---

11. The Social Security Administration provides a free booklet, called "Your Medicare Handbook," describing your Medicare benefits. Some people call it the bluebook. Have you ever received a copy of "Your Medicare Handbook?"

Yes (ASK Q. A) 1 68/
No (SKIP TO Q.12) 2
Don't know (SKIP TO Q.12) 8

IF YES, ASK:

A. Overall, how helpful have you found this booklet in explaining your Medicare benefits? Would you say that the handbook is very helpful, somewhat helpful, or not at all helpful?

Very helpful 1 69/
Somewhat helpful 2
Not at all helpful . . . 3
Don't know/no opinion . . 8

Card 1-2

---

12. Do you have any other health insurance coverage that helps pay for the things that Medicare does not cover?

Yes (ASK A-D) 1 70/
No (SKIP TO Q.13) 2
Don't know, not sure
(SKIP TO Q.13). 8

IF YES, ASK:

A. How many other health insurance policies are you covered by?

No. other policies ________ 71/

B. Does your additional health coverage help to pay for (READ ITEM) that's not paid by Medicare, or aren't you sure? (READ EACH ITEM AND CODE ONE.)

	Yes	No	Not Sure	
Part of the doctors' bills	1	2	8	72/
Any hospital charges	1	2	8	73/
Prescription drugs	1	2	8	74/
Nursing home care	1	2	8	75/
Other things (SPECIFY)____________ . . .	1	2	8	76/

C. Do any of these other health policies pay you a certain amount of money for each day you are in a hospital or pay a certain amount for different kinds of surgery?

Yes 1 77/
No 2
Not sure 8

D. Do any of these other policies cover only serious diseases, like cancer?

Yes 1 78/
No 2
Not sure 8

Card 2
1-6/DUP
7/2

BACKGROUND INFORMATION

These last few questions are for classification purposes only, so that we may be able to combine your answers with those of the other people like yourself.

13. What is your marital status? Are you married, separated, divorced, widowed, or single?

Married 1 8/
Separated 2
Divorced 3
Widowed 4
Single 5
REFUSED 7

Card 2
Contd.

14. Including yourself, how many people live in your household?

Live alone, one	1	9/
Two	2	
Three	3	
Four	4	
Five or more	5	

15. Do you own or rent the home you're living in?

Own or buying home	1	10/
Rent	2	
Occupied without payment of cash rent	3	

16. Do you have any close friends or relatives who would be able to take care of you if, for some reason, you were sick or unable to leave the house?

Yes	1	11/
No	2	

17. What is the last grade of school you completed?

8th grade or less	1	12/
9th-11th grades	2	
12th grade (high school)	3	
1-3 years college	4	
4 years college	5	
More than 4 years college	6	

18. Are you presently working?

Yes (ASK A)	1	13/
No	2	

IF YES, ASK:

A. How many hours per week do you usually work?

No. hours/week ________ 14-15/

19. Do you consider yourself retired?

Yes	1	16/
No	2	

Card 2
Contd.

---

20. What (is/was) your main occupation (before you retired)? (PROBE FOR FULL DESCRIPTION.)

____ 17-19/

____

____

---

21. What was your total household income--before taxes or other deductions--for 1981? Include income from all sources including social security, wages, interest, and dividends. Was it. . . (READ LIST AND CODE ONE.)

Under $5,000 per year	1	20/
$5,000 to $10,000 per year.	2	
$10,000 to $15,000 per year	3	
$15,000 to $20,000 per year	4	
Over $20,000 per year	5	
REFUSED	7	

---

22. Do you live in a large city, a small city, the suburbs, or in a rural area?

Large city	1	21/
Small city	2	
Suburbs	3	
Rural area	4	

AT COMPLETION OF INTERVIEW, SAY:

Thank you very much for cooperating with this important survey. (Your answers will represent the opinions of many other people in the Medicare program.) You've been very helpful.

Time Ended: ____________ am pm

INTERVIEWER: Complete information below.

Respondent interviewed was sampled beneficiary	1	22/
Respondent interviewed was substitute respondent.	2	
Interview length in minutes	__ __	23-24/
Interview was completed on call attempt	# __	25/
Interview was completed on.	____ day ____ month ____ date	26-30/
Interview was completed by Interviewer I.D.#	__ __ __ __	31-34/

Coder I.D.#	__ __ __ __	35-38/
Q.C.'er I.D.#	__ __ __ __	39-42/

Transfer in HIC # 43-53/

APPENDIX C

Comments on the Draft Final Report

Blue Shield®
of Western New York, Inc.

298 Main Street
P.O. Box 80
Buffalo, N. Y. 14240
(716) 849-6981

JOHN T. MANYON, C.F.A.
President

May 31, 1983

ABT Associates, Inc.
55 Wheeler Street
Cambridge, MA 02138

Attention: Stephen T. Mennemeyer, Ph.D.
Project Director

Gentlemen:

Re: DRAFT EVALUATION REPORT FOR MEDICARE PART B FIXED PRICE CONTRACT EXPERIMENTS

We have reviewed the above and found it quite complete and very well done. We have only three comments. First, we note that on page 1-12 you state that the Contractor Performance Evaluation Plan was used in monitoring the upstate New York contract. That is not correct; HCFA used an ad hoc monitoring plan similar to those used in Maine and Illinois.

Second, on the bottom of page 1-39, the draft report states that HCFA requires all carriers to provide toll-free telephone service to beneficiaries. Because of the cutbacks imposed on carriers during 1981 and 1982, this requirement no longer exists.

Third, we note as we did in item 7 of our September 30, 1982 letter to you, that the use of a "per-claim cost comparison" is misleading as long as there is no uniform definition of a claim. We think that an average cost per Medicare beneficiary is a much more reliable and appropriate method of comparison.

We hope the foregoing is helpful to you. If you have any questions or would like to discuss any of the matters touched on in this letter or in the draft report, I would be happy to talk with you.

Sincerely,

John T. Manyon

JTM:lv

Medicare
Part B

E. D. S. FEDERAL CORPORATION
DES PLAINES, ILLINOIS 60018
SUITE 500
999 E. TOUHY AVE.
(312) 635-6171

May 16, 1983

Stephen T. Mennemeyer, Ph.D.
Project Director
Abt Associates, Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138

Dear Dr. Mennemeyer:

This letter contains our comments on the draft copy of Abt Associates's final report on the Medicare Part B fixed price experiments.

In general EDS Federal agrees with the information presented in the report and Abt Associates' interpretation of this data. The following comments are submitted to expand on a few areas of the report in order to provide a broader understanding of our operations and performance in Illinois.

The last paragraph on page 1-26 begins with the statement, "While EDSF's performance in some areas has improved, there continues to be considerable dissatisfaction with their overall performance." EDS Federal considers this statement to be dated and not consistent with the results of the beneficiary and provider surveys conducted by Abt Associates in Illinois. Over the past two years there have been major improvements in EDS Federal's performance. These improvements have been significant in virtually every area of carrier operations.

Beginning with April, 1982 through the present date EDS Federal has passed all System II Performance Standards (Results for Jan-March 1983 are not complete). During this same period EDS Federal's average processing time for claims, correspondence, and fair hearings has been considerably better than national averages. The payment/deductible error rate has been better than or very close to national averages. All of these indicators lead to the conclusion that any dissatisfaction detected is either based on past performance, not current performance, or it is with the Medicare Program and not with EDS Federal's administration of the program.

As supplemental information to the findings of the provider survey in Illinois which are generally favorable compared to the other carrier sites I am enclosing copies of endorsements EDS Federal has received from the Illinois State Medical Society as well as other major physician/supplier organizations. Also included is an endorsement from the largest clinic in the State of Illinois, Carle Clinic. While some dissatisfaction with performance during the early days of our contract is mentioned, these organizations clearly indicate satisfaction with EDS Federal's performance over the past two years.

Comments similar to these endorsements have been received from a number of senior citizens organizations with which we have been associated in conducting our beneficiary education program. Enclosed are only a few of the many letters we have received since the inception of the beneficiary education program.

On page 2-60 you state, "Our analysis shows that a carrier's claims development activity has a consistent but relatively small impact on administration costs." The report further indicates that a one percentage point increase in the development rate is equal to a \$0.02 to \$0.04 increase in cost per claim. EDS Federal has consistently maintained a higher development rate than the national average for all carriers in an attempt to pass the rigid requirements of the unique performance monitoring plan applicable to the Illinois carrier. For example, in May, 1981 the national average for all carriers was 7.4% while the development rate for EDS Federal was 15.1%. Following the implementation of administrative cost saving initiatives by cost reimbursed carriers the difference was even greater. During October, 1981 the national average was 5.4% while EDS Federal's development rate was 14.4%. HCFA then advised EDS Federal that certain cost savings initiatives were to be implemented in Illinois and that our revenue would be reduced to reflect the reduction in work required. Beginning with March, 1982 EDS Federal's development rate has been averaging close to 9.0% while the national average has been approximately 4.5%. The cost to EDS Federal to maintain development rates at 2 to 3 times the national average has been significant. For example, the difference between EDS Federal's development rate and the national average for the month of October, 1981 is 9.0%. During that month we processed 511,030 claims; therefore, the cost to EDS Federal for the additional development would then be within the following range according to your estimate of the incremental cost per percent increase:

\$0.02 X 9 X 511,030 = \$ 91,985.40
\$0.04 X 9 X 511,030 = \$183,970.80

EDS Federal considers these amounts to be a very significant percentage of total revenue. It is EDS Federal's position that when dealing with cost reimbursement carriers HCFA tends to temper its monitoring of performance to encourage low administrative costs (e.g., development requirements) while with fixed price contractors, HCFA fully expects the contractor to bear the costs of meeting rigid performance standards. While HCFA mandated that EDS Federal implement some of the cost savings initiatives available to other carriers there was also a reduction in the "fixed price" commensurate with the anticipated workload reduction. However, there has been no additional compensation to EDS Federal for the costs incurred over and above what other carriers are required to do as a result of the unique monitoring plan designed for Illinois.

In light of these facts, EDS Federal believes that the comments on page 2-60 regarding administrative costs associated with claims development are somewhat understated.

The footnote on page 2-69 makes reference to a recent GAO study related to the cost-benefit ratio of prepayment utilization review screens. While EDS Federal was not one of the carriers included in this study, we have been asked to provide this information to HCFA for quarters ending December, 1982 and March, 1983. The benefit cost ratio for EDS Federal for these quarters are $1 : $10.40 and $12.39 respectively which compares favorably to the results of the GAO study which indicated a high of $1 : $7. EDS Federal believes that this is an area where carriers should be encouraged through the use of appropriate incentives to contain benefit payments. Element 2 of Criterion D, FY83 CPEP, is an experimental element designed to measure the cost-benefit ratio of a carrier's utilization review process. A rating of $1 : $10 or above would earn the highest rating and result in 2 bonus points. EDS Federal recommends that this element be retained in future versions of CPEP.

This concludes our comments on the draft copy of the final report. I am enclosing updated copies of our performance as monitored by HCFA under the Carrier Performance Standards Program and our most recent 12 month performance graphs compiled by EDS Federal. If you have any questions please contact me.

Sincerely,

Tom Harenchar

Tom Harenchar
Director of Professional Services

TH/cw

attachments:

1. Provider Endorsements
2. Beneficiary Organization Letters of Appreciation
3. Criteria D, Element 2, FY83 CPEP
4. CPS Performance Results (qtr. ending 12/81 to present)
5. Recent 12 month Performance Graphs

Abt Associates has deleted from this report some materials submitted by EDSF in the interests of brevity.

EDSF Attachment 1 consists of endorsement letters from the following organizations:

Illinois State Medical Society, Chicago, Illinois

Illinois Association of Clinical Laboratories, Park Ridge, Illinois

Illinois Association of Medical Equipment Suppliers, Chicago, Illinois

Illinois Chiropractic Society, Inc., Lombard, Illinois

Carle Clinic Association, Urbana, Illinois

EDSF Attachment 2 consists of endorsement letters from:

Joyce Hill, Lake Forest Recreation Department, Lake Forest, Illinois

Member of Congress Lynn Martin, Congress of the United States, House of Representatives, Washington, D.C.

Representative Tom Corcoran, Congress of the United States, House of Representatives, Washington, D.C.

S.C. Berdux, Lake County Council for Seniors, Waukegan, Illinois

Karen S. Hansen, Village of Niles, Niles, Illinois

Donna Stark Hayden, R.N., Senior Services Center of Will County, Joliet, Illinois

Sharon Gambo, A.C.S.W., Saint Joseph Hospital, Joliet, Illinois

Louis Stuart, M.S.W., Saint Joseph Hospital, Chicago, Illinois

Dorothea Scott, Family Service of Champaign County, Urbana, Illinois

D. CRITERION D - DEVELOP AND MAINTAIN A UTILIZATION REVIEW (UR) PROCESS.

1. ELEMENT 1 - Submit quarterly management reports to the regional office which analyze the cost effectiveness of utilization review activity.

METHOD OF RO EVALUATION: Determine if quarterly UR reports, including cost-benefit analysis, were submitted to the regional office in accordance with MCM 7535.

SPECIAL SCORING:

0 = Carrier submitted complete reports containing all required data no later than 45 days after the end of the quarter.

-1 = Carrier submitted complete reports, but one was received later than 45 days after the end of the quarter.

-4 = Carrier submitted one or more incomplete reports or more than one report was later than 45 days after the end of a quarter.

WEIGHT: 1.5.

2. ELEMENT 2 - Review quarterly UR reports to determine actual cost/efficiency of UR system.

METHOD OF RO EVALUATION: Determine cost-benefit ratio on a fiscal year basis by examining the 3 quarterly reports submitted.

SPECIAL SCORING:

+2 = $1/$10.00 and above

+1 = $1/$7.50 - $1/$9.99

0 = $1/$5.00 - $1/7.49

-1 = $1/$4.50 - $1/$4.99

-2 = $1/$4.00 - $1/$4.49

-4 = $1/$3.99 or less

WEIGHT: 2.

[illegible]

[illegible] PROCESS

[illegible]

[illegible] of the quarter.

[illegible]

ATTACHMENT 4

System I Performance, October-December, 1981 Quarter to Present

	Description	Standard	Oct.-Dec. 1981	Jan.-March 1982	April-June 1982	July-Sept 1982	Oct-Dec 1982
	Percentage of Claims Processed in 15 Days	75%	P (81.4%)	P (85.3%)	P (88.4%)	P (84.6%)	P (85.3%)
	Percentage of Claims Pending 30 Days	12%	P (9.3%)	P (6.3%)	P (5.5%)	P (4.7%)	P (3.8%)
	Occurrence Error Rate	National Median (NM)	[F] (13.7% vs. 7.6%(NM))	[F] (11.1% vs. 7.3%(NM)	[F] (7.2% vs. 5.9%(NM))	[F] (9.3% vs. 5.8%(NM))	Tent [F] (8.7% vs. 5.8%(NM)
4.	Payment/ Deductible Error Rate	National Median (NM)	[F] (2.4% vs. 1.9%(NM))	[F] (2.21% vs. 1.8%(NM))	P (1.2% vs. 1.5%(NM))	[F] (1.7% vs. 1.6%(NM))	Tent [F] (1.9% vs. 1.6%(NM).
	Informal Reviews Cycle Time	25 days	P (11.6)	P (10.7)	P (10.7)	P (12.5)	P (11.6)

ATTACHMENT 4

System-II Performance, October-December, 1981 to Present

	Description	Standard	Oct.-Dec. 1981	Jan.-March 1982	April June 1982	July Sept. 1982	Oct. Dec. 1982
A.	Claims Process	Pass 2 Mandatory Elements; Get at Least 46 of 52 Possible Points	P (All mand; 47 of 52)	P (All mand; 47 of 52)	P (All mand; 47 of 52)	P (All mand; 47 of 52)	P (All mand; 47 of 52)
B.	Coverage and Utilization Standards	Pass 2 Mandatory Elements; Get at Least 20 of 23 Possible Points	P (All mand; 20 of 23)	P (All mand; 20 of 23)	P (All mand; 20 of 23)	P (All mand; 20 of 23)	P (All mand; 20 of 23)
C.	Program Reimbursement	Pass 13 Mandatory Elements; Get at Least 15 of 17 Possible Points	P (All elements passed)	P (All elements passed)	P (All elements passed*)	P (All elements passed)	P (All elements passed)
D.	EDP Operation	Pass 1 Mandatory Element; Get at Least 14 of 16 Possible Points	P (All elements passed)	P (All elements passed)	P (All elements passed)	P (All elements passed)	P (All elements passed)
E.	Beneficiary Services and Professional Relations	Pass 3 Mandatory Elements; Get at Least 36 of 40 Possible Points	[F] (All mand; 28 of 40)	[F] (All mand; 28 of 40)	P (All mand; 38 of 40)	P (All elements passed*)	P (All elements passed)
F.	Program Integrity	Get At Least 13 of Possible 15 Points	P (All elements passed)	P (All elements passed)	P (All elements passed)	P (All elements passed)	P (All elements passed)
G.	Quality Assurance	Get At Least 10 of Possible 12 Points	P (All elements passed)	P (All elements passed)	P (All elements passed)	P (All elements passed)	P (All elements passed)

ILLINOIS MEDICARE PART B

STATUS REPORT

LAST 12 MONTHS

MAY 1982 THROUGH APRIL 1983

Prepared May 3, 1983

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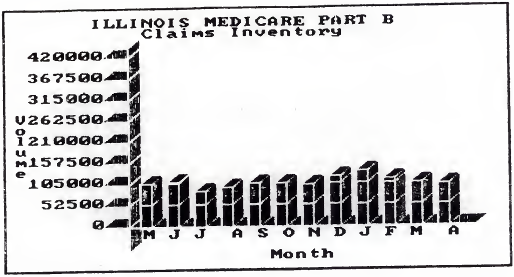
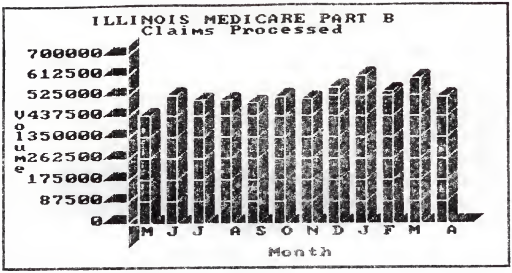


CLAIMS INVENTORY

1982

May	107,021
June	108,764
July	87,193
August	97,228
September	105,303
October	106,346
November	102,632
December	122,939
1983	
January	136,048
February	116,201
March	105,896
April	104,402



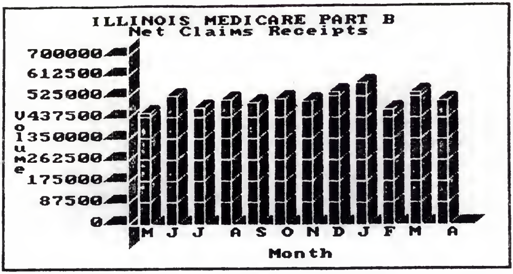
CLAIMS PROCESSED

1982

May	437,918
June	528,841
July	503,441
August	504,782
September	495,678
October	519,760
November	513,502
December	560,957

1983

January	608,118
February	546,867
March	596,777
April	520,025



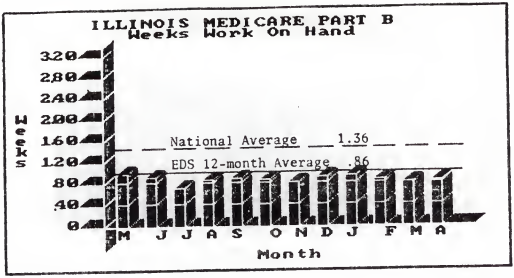
NET CLAIMS RECEIPTS

1982

May	456,712
June	528,334
July	478,023
August	512,868
September	501,533
October	517,643
November	506,715
December	543,318

1983

January	580,035
February	471,005
March	545,156
April	513,345



WEEKS WORK ON HAND

1982

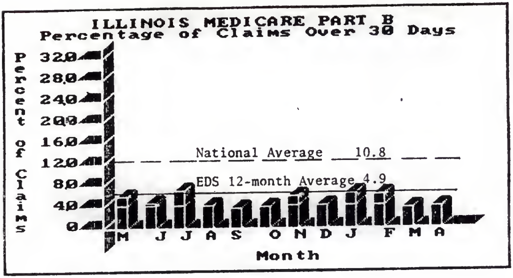
May	.98
June	.90
July	.72
August	.85
September	.89
October	.86
November	.80
December	.92

1983

January	.94
February	.85
March	.82
April	.84

- -

National Average	1.36
EDS 12-month Average	.86



PERCENTAGE OF CLAIMS OVER 30 DAYS

1982

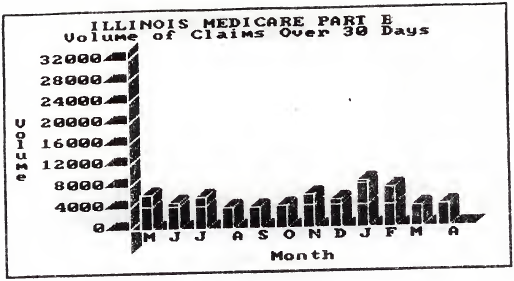
May	5.9
June	4.6
July	6.8
August	4.0
September	3.6
October	3.9
November	5.9
December	4.2

1983

January	6.4
February	6.2
March	3.7
April	3.8

- -

National Average	10.8
EDS 12-month Average	4.9



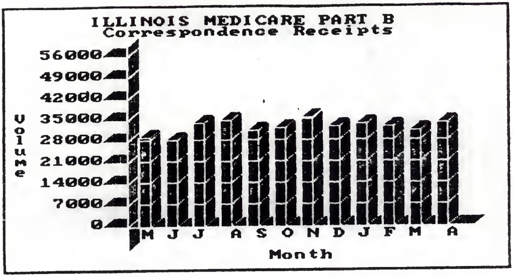
VOLUME OF CLAIMS OVER 30 DAYS

1982

May	6,290
June	4,992
July	5,888
August	3,886
September	3,761
October	4,211
November	6,122
December	5,160

1983

January	8,645
February	7,262
March	3,898
April	4,003



CORRESPONDENCE RECEIPTS

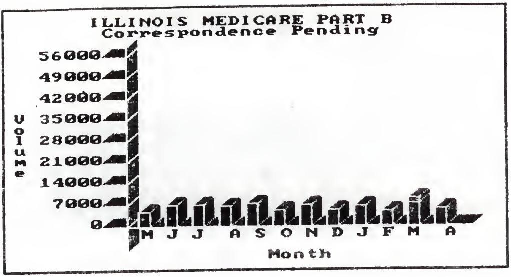
1982

May	29,277
June	28,229
July	33,953
August	34,602
September	31,321
October	31,980
November	35,714
December	32,609

1983

January	33,610
February	32,563
March	31,467
April	33,889

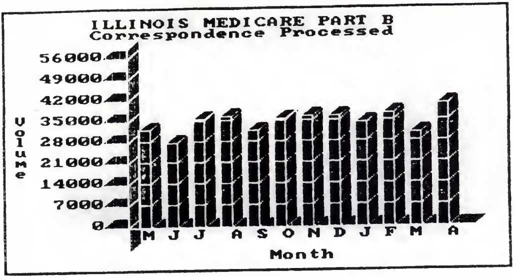
Note: Correspondence received that has questions about more than one claim is split for processing. This increases the processed count above the receipts counted.



CORRESPONDENCE PENDING

1982	
May	4,648
June	6,664
July	6,712
August	6,439
September	7,044
October	4,882
November	6,873
December	4,979
1983	
January	6,300
February	4,498
March	8,974
April	5,342

Note: Correspondence received that has questions about more than one claim is split for processing. This increases the processed count above the receipts counted.



CORRESPONDENCE PROCESSED

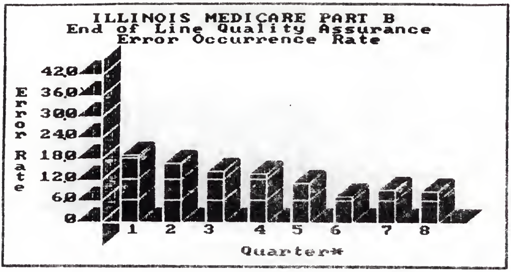
1982

May	32,352
June	27,835
July	35,785
August	36,378
September	31,924
October	35,693
November	36,323
December	36,508

1983

January	34,151
February	37,226
March	30,839
April	40,275

Note: Correspondence received that has questions about more than one claim is split for processing. This increases the processed count above the receipts counted.

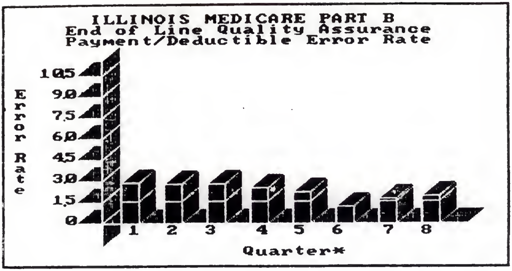


(*See corresponding numbers below)

END OF LINE QUALITY ASSURANCE

Error Occurrence Rate

	Quarter	
1.	January - March 1981	18.9
2.	April - June 1981	16.6
3.	July - September 1981	14.6
4.	October - December 1981	13.7
5.	January - March 1982	11.0
6.	April - June 1982	7.18
7.	July - September 1982	9.3
8.	October - December 1982	8.68



(*See corresponding numbers below)

END OF LINE QUALITY ASSURANCE

Payment/Deductible Error Rate

	Quarter	
1.	January - March 1981	2.9
2.	April - June 1981	2.8
3.	July - September 1981	2.8
4.	October - December 1981	2.45
5.	January - March 1982	2.21
6.	April - June 1982	1.22
7.	July - September 1982	1.7
8.	October - December 1982	1.93

Mutual of Omaha Insurance Company ■ Home Office, Mutual of Omaha Plaza, Omaha, Nebraska 68175 ■ V. J. Skutt, Chairman of the Board ■ J. D. Minton, Presid

Mutual of Omaha

Contractor for
MEDICARE

Address reply to
MUTUAL OF OMAHA
Medicare Division
Box 456
Omaha, Nebraska 68101
Phone (402) 978-2240

May 11, 1983

Mr. Stephen T. Mennemeyer, Ph.D.
Project Director
Abt Associates Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138

Dear Mr. Mennemeyer:

We have reviewed the "Draft Final Report for the Evaluation of the Medicare Part B Fixed Price Experiments in Maine, Upstate New York, and Illinois" dated March 1983.

We must state our disappointment in the report and your recommendations. It seems to us that the study was designed very narrowly to look at only the first round of procurements within these states. As we pointed out in our letter to you dated September 24, 1982, we believe an incomplete and misleading picture is presented by not looking at the likely and established effects of subsequent competitions.

We note nowhere in the Draft Final Report where our thoughts conveyed to you in our letter of September 24, 1982, were recognized. We are attaching a copy of this letter for your rereading.

Some additional thoughts:

1. In view of the problems (pages 1-26ff) associated with the implementation in Illinois by a contractor with no previous experience as a Medicare carrier, we cannot understand your recommendation on page 1-58 "Until (certain) revisions have been made, we recommend that future competitions not place a heavy weight on experience".

2. Although given short shrift in the draft report, the losses incurred by the experimental carriers (pages 7-8) and the allegation about "buying in" (page 1-46) tend to support our position that the assumed cost savings to the government (pages 6-7) will likely not recur under subsequent competitions, in that few companies can afford to take losses repeatedly. The report suffers, in our opinion, by not developing this point.

3. The data shown in Table 2.1, page 2-2, supports the cost-reimbursed contractor's position that HCFA does not need to undertake competitive procurements to lower administrative costs. The data show Cost per Claim for the cost-reimbursed carriers dropped from $7.04 in FY 1969 to $2.62 in FY 1981. And the Cost per Claim was even lower for FY 1982 - $2.39. During this same period, the other 4 performance indicators all showed improvements. It is difficult to look at the data contained in this table and conclude that there is a compelling need to move towards competitive procurements in order to improve cost and other performance.

4. In our opinion the difficulties in implementation in Illinois and New York are minimized in your draft report. Just the cost to HCFA in monitoring must have been staggering.

5. What significance do you attach to the fact that the Colorado and Puerto Rico procurements had only one response?

We urge that the report be rewritten to explore these other viewpoints. In the absence of such modifications, we believe the report is incomplete and misleading.

We appreciate the opportunity to comment on this draft report.

Sincerely,

B. H. Patterson
Vice President
Medicare Administration

BHP:mw
Enc.

al of Omaha Insurance Company ■ Home Office: Mutual of Omaha Plaza, Omaha, Nebraska 68175 ■ V. J. Skutt, Chairman of the Board ■ J. D. Minton, Pre

Mutual of Omaha

Contractor for

MEDICARE

Address reply to

MUTUAL OF OMAHA
Medicare Division
Box 456
Omaha, Nebraska 68101
Phone (402) 978-2240

September 24, 1982

Abt Associates Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138

Attn: Stephen T. Mennemeyer, Ph.D.
Project Director

Re: Draft Evaluation Report -
Maine Part B Fixed Price
Medicare Contract Experiment

Dear Dr. Mennemeyer:

We sent our comments concerning the draft report to you on September 13, 1982. Upon re-reading the draft report, however, we believe additional comments are in order.

We believe insufficient import was given to what in our opinion are two highly significant outcomes of Maine II proposals. These are summarized on pages 2-25 and 2-26.

Since your report will be used to help assess the success or failure of the fixed price competitive process, we think additional weight should be given to the fact that while 5 bids were received in Maine I, only 2 bids (excluding the one withdrawn bid) were received in Maine II. We expect that that sort of response is very likely what is going to happen in future recompetitions, and we'd guess, if Maine III or Maine IV is put out for bid, the likelihood of receiving only the incumbent's bid is quite high. Such a sequence seems inevitable to us, and must be taken into account when deciding on the advisability of future competitive bids.

Even more significant, in our opinion, is that the unit cost in Maine I was $2.48 and in Maine II was $3.03, an increase of 55¢ or 22.2%, this occurring at a time when cost-reimbursement carrier costs, as a whole, are reducing sharply.

We believe your report will be incomplete without making the necessary projections and presenting data similar to Table 4.14 for the period October 1981 through September 1985 (Maine II). Only in this manner can the Government and other interested parties see what is likely to happen after the initial competition. It is somewhat understandable that a company might accept a one-time loss of $935,437 in order to obtain a business contract, but it is less believable that a company could afford to incur such a loss each time the contract is recompeted.

In summary, we feel the report, by estimating savings only for the initial contract, and by ignoring what happened in Maine II, present an incomplete and misleading picture. (Also, we can't be sure, but are implementation costs included in the unit costs used to project Total Savings in Section 4.4.7?)

Your report concludes, on pages 4-44, "These computations suggest that the fixed price experiment in Maine has been quite effective in achieving lower administrative expense for taxpayers". We suggest that a less sweeping, and more accurate, conclusion might be that the initial competition leads to lower administrative expense for taxpayers, but subsequent competitions lead to higher expenses.

Sincerely,

B. H. Patterson
Vice President
Medicare Administration

BHP:mw

Transamerica
Occidental Life

Transamerica Occidental
Life Insurance Company
Transamerica Center
1150 South Olive
Los Angeles, California 90015
(213) 748-2311

Mailing Address
Box 54905 Terminal Annex
Los Angeles, California 90054

May 25, 1983

Stephen T. Mennemeyer, Ph.D
Project Director
Abt Associates, Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138

Dear Mr. Mennemeyer:

We have received the "Draft Final Report for the Evaluation of the Medicare Part B Fixed Price Experiments in Maine, Upstate New York and Illinois" dated March 1983.

We appreciate the opportunity to review and comment on it, especially since your interpretation of the data is so divergent from our view and our perception of the real events as they were taking place. Needless to say this leads us to disagree with some of the major conclusions.

The difficulties encountered in the beginning and first year of the experimental contracts appear to be minimized in the report. Especially in two of the states when the disruptions in the flow of claim payments were severe to both the physicians and the beneficiaries. This in turn created a deluge of complaints and in one state a public outcry. It included a petition by the states federal legislators and other public health officials that another carrier be selected. This does not indicate only minor problems.

Related to this, the report did not seem to give due notice to the costs it took for Health Care Finance and other public agencies to intercede in the difficulties, to see that corrections were made and continue monitoring to see that service was restored. This overlooks a significant additional expense to the government and reduces any savings realized. It should be projected to any future bid contracts.

As pointed out in pages 7 and 1-46 of the report, the first rounds of experimental contracts generated costs to the contractors well in excess of the bid prices. The second contract in Maine was let at a per claim price of $3.03 which was well above the national average. It is also our understanding that Upstate New York was not rebid at the end of its first term, but a negotiated contract was approved at a price level at that of the cost contractors. Two subsequent areas have been opened for bid, Puerto Rico on which no entity bid and Colorado on which only the incumbent carrier bid.

There are at least two facets to this, first that no prudent company will continue to engage in a process in which they will lose money and that the original savings in costs per claim were not maintained.

Medicare Administration

The beginning difficulties in the experiments in Illinois, we believe can be directly attributed to lack of experience. With the current emphasis on benefit savings and control of utilization and costs we believe greater emphasis should be placed on the experience of contractors rather than less. The cost of administration is minimal as compared to benefit costs and the savings that can be accomplished in removing benefit over utilization, fraud and abuse from the program. One of the reasons for the history of large scale fraud and abuse in the Medicaid program has been attributed to the fact that administration has been done by computer firms rather than firms with knowledge and experience in the health industry.

One other more minor point is that the report (page 2-36) emphasizes the effect of volumn up to a certain level only, then it indicates it has an adverse effect. This is in direct contradiction to the application of the standards set for the cost contractors, where an inverse form of the evaluation is used throughout. This should be resolved.

From the above and our total broader perspective, there were savings in the first rounds of experimental bidding, but we do not believe that it is reasonable to expect future bids to be made at levels below actual costs. Therefore, after possibly an initial one time savings the bid contracts' administrative expense would continue to rise to a level at or near the current cost contractors level.

Further, the levels of savings should be reduced by the added cost of monitoring and involvement by government agencies in changing contractors, stepping in to solve difficulties and the continuing effort of closer guidance and monitoring of unexperienced administrators.

Finally, the amount of savings which can be accomplished by an improved program, administered by those with experience in the Health Care field in monitoring benefit utilization, fraud and abuse, so far out-weighs any administrative cost savings by the disruptive bidding process situation, it is clear where the program emphasis should be.

Thank you again for your courtesy in allowing us to review and comment on the report. We will be glad to expand on our views or answer any questions.

Sincerely,

Neil F. Bass

Neil F. Bass
Second Vice President and
Chief Medicare Administrator

NFB:rmm

cc: Ben Patterson
William C. White, Jr.
Michael J. Schaub

Three Part B Experiments

Illinois--The sixth finding on page 1-29 states that "EDSF's protracted difficulties in meeting contract standards and incurring liquidated assessments suggest that higher liquidated damages may be needed to encourage compliance by any future large volume fixed-price contracts."

Comment--If liquidated damages were set at a higher level, the amount could be construed as a penalty or an amount in excess of a genuine pre-estimate of the damage suffered. Moreover, contractor risk would be higher, possibly resulting in higher bid prices or inhibiting competition for HCFA's fixed-price procurements. Liquidated damages are not set to penalize Medicare contractors. The amount of these damages are set to approximate the amount of damage the Government can reasonably expect to incur if the contractor fails to achieve a required level of performance. The Federal Government regulations prohibit the Government from assessing penalties under a fixed-price contract.

Maine--The second finding on page 1-21 states that the "penalties for liquidated damages may have been somewhat too strict, so that the carrier did not achieve efficiency comparable to some of the better performing cost reimbursed carriers."

Comment--We suggest that ABT explain the basis for its conclusion and provided HCFA with guidelines that could be used in future experimental procurements so that this situation could be avoided. Further, it should be noted that the liquidated damages is the proper reference not "penalties." Penalties as indicated above are prohibited by the Federal Procurement Regulations.

Bureau of Program Operations
Office of Program Administration
Division of Procurement
Contract Initiatives Branch
August 8, 1983

Other Findings and Recommendations of Study

Recommendation--On page 18, 1-50 and 1-54, a recommendation is made that the scoring system HCFA uses for proposals should be modified to (1) allow reviewers to form qualitative judgments about the proposal's merit; (2) allow the review panel to exercise a wider range of technical judgment; and (3) make better use of officially known information on offeror responsibility such as the Annual Contractor Evaluation Report (ACER) so that HCFA can followup on inconsistencies.

Comment--HCFA believes that the scoring methodology used to evaluate proposals has proved effective at differentiating the full technical capabilities of various bidders. However, since HCFA is conducting experiments to determine the best method of selecting Medicare contractors, HCFA will consider experimenting with a proposal evaluation system that allows more summative judgments by technical reviewers.

Recommendation--On page 1-51 a recommendation is made that the checklist questions be included in the RFP because they "merely inventory the capabilities of a system that the Government wishes to purchase."

Comment--These questions are used not only to measure the capability of an offeror's system but to determine the capability of the offeror to administer the Medicare program and carry out all requirements specified in the RFP. If HCFA were to disclose these questions, they could not be used in future procurements for evaluative purposes, and would be of diminished value to HCFA.

Recommendation--On page 1-58, it is recommended that future procurements "not place a heavy weight on experience." Instead HCFA should take into account (1) absorbing Medicare workloads from new territories; (2) implementing new computer systems; and (3) taking over other claims processing activities.

Comment--We believe that the use of prior Medicare/Medicaid experience as an evaluative criterion of good performance has served us well in past procurements and should continue to be emphasized. Since few Medicare contractors have experience with your recommended criteria, it would not be practical to place emphasis on that criteria at this time. HCFA will consider the changes suggested when contractors gain the experience needed with respect to the recommended criteria.

3. Page 5, the last sentence of the first paragraph, should be updated to indicate HCFA decided not to award a contract for the Puerto Rico procurement and that the Colorado A/B contract was awarded to Blue Cross and Blue Shield of Colorado in December 1982.

4. Page 5, in the first paragraph, the reference to the Upstate New York contract reverting back to a "traditional cost reimbursement contract" is not completely accurate. While that experiment did end and reverted to a cost reimbursement contract, that contract has been classified as a "nonstandard cost contract" because of some variations from the traditional cost contract.

5. On page 1-8, table 1.1 needs to be revised. Under column Experimental Contractor, Puerto Rico should be shown as Not Awarded. For Colorado A/B experiment, Blue Cross and Blue Shield of Colorado was the successful contractor. Under column Experiment Ending Date, Colorado should be shown as September 30, 1986. The contract period for the Colorado experiment is December 10, 1982 through September 30, 1986. Also, footnote 3 should be updated to show that the Illinois contract was awarded on July 13, 1983.

6. Page 1-49 contains information which we believe is inappropriate to disclose. Quotes from the evaluation checklists or the scoring system are not appropriate for disclosure. Since the checklist may be used in future procurements, disclosing such data will significantly lessen its value to HCFA.

7. Page 2-51, second sentence of the first paragraph, "additional" not "adidtional."

Bureau of Program Operations
Office of Program Administration
Division of Procurement
Contract Initiatives Branch
August 8, 1983

Draft Final Report for the Evaluation of the Medicare Part B Fixed-Price Experiments in Maine, Upstate New York and Illinois

Technical Comments

Maine

1. The unit prices given on page 1-17, table 1-3 for Maine II need to be reviewed to see if they are correct. If the unit prices represent the operational period costs divided by the claims volume they are correct. If implementation costs are included in the computation the unit prices are incorrect.
2. The fifth finding on page 1-21 states the requirement that claims processing be performed within the State seems unnecessary in Maine. This statement is incorrect. Claims input only was required in Maine, not the claims processing operation.

Illinois

1. The points shown for the Technical Evaluation categories in table 1.5 on page 1-25 are, we believe, inappropriate for disclosure since they show how HCFA scored these weights in the Illinois procurement. Score rankings or the technical evaluation weights published in the Illinois procurement should be used instead.
2. The fourth finding on page 1-29 states that there are indications that the EDSF system was effective in detecting the large number of duplicate claims that were failed during the first year of heavy claims backlogs. ABT Associates should provide the "indicators" that support this finding.

Others

1. Page 1, last line of first paragraph, add "and on a" between the words "reimbursed" and "nonprofit."
2. Pages 2, 4, 12, 19, 1-6, and any in other locations in this report, use of the word "penalties" when referring to liquidated damages is inappropriate. The Federal procurement regulations prohibit the Government from assessing penalties under a fixed-price contract. Another appropriate reference for liquidated damages is monetary damages.

Comment--HCFA has followed a contracting strategy calling for a contractor's presence in the experimental site. It is our view that this presence enhances the responsiveness of the Medicare program to local problems and ensures recognition of the sensitivities of the medical community, beneficiaries and the local population.

Because these major recommendations will be the focus of debates with the contracting community, within HCFA, and with Congress, I suggest that ABT be sure that it is on firm ground on each of them.

John C. Berry
Director

2 Attachments

DEPARTMENT OF HEALTH & HUMAN SERVICES

Health Care
Financing Administration

Memorandum

Refer to: BPO-P13

Date AUG 17 1983

From Bureau of Program Operations

Subject Comments on ABT Associates Draft Final Report on the Health Care Financing Administration's (HCFA) Part B Fixed-Price Experiments in Maine, Upstate New York and Illinois--INFORMATION

To Office of Research and Demonstrations
Attention: Brad Perry

We have reviewed the ABT draft final report and agree with most, but not all, of its conclusions. Staff comments on the findings and minor recommendations are attached. My major concerns are with three of the recommendations in the Executive Summary, and their implications. We have also included two attachments which contain our comments on other findings and recommendations of the study as well as our technical comments.

Executive Summary Recommendation

Recommendation 1--The practice of competitive Medicare contracting could be safely expanded. Fixed price contracts with rigorous performance standards and monetary penalties for their failure should be the favored form of contract.

Comment--This recommendation is offered without analysis of the number of additional HCFA staff required to execute competitive procurements, and to manage requirements at the end of the fixed price contract. We believe we can achieve the same results on a national basis by vigorously negotiating cost contracts, while treating fixed price contracting authority mostly as a tool to be used in situations where it is absolutely needed. Moreover, there are additional types of contracting modes, other than fixed-price, that may also be of benefit to the program.

Recommendation 2--Firms other than insurance companies should continue to be eligible to compete for Medicare contracts.

Comment--The rationale in the report does not present a convincing argument for permitting other than insurance companies to be eligible to compete for Medicare contracts. If such information is available, it should be documented in the report.

Recommendation 6--On page 21, a recommendation is made that HCFA not restrict a carrier to a principal site of operations within the competed territory.

May 31, 1983

ABT Associates, Inc.
55 Wheeler Street
Cambridge, MA 02138

Attention: Stephen T. Mennemeyer, Ph.D.
Project Director

Gentlemen:

Re: DRAFT EVALUATION REPORT FOR MEDICARE PART B FIXED PRICE CONTRACT EXPERIMENTS

We have reviewed the above and found it quite complete and very well done. We have only three comments. First, we note that on page 1-12 you state that the Contractor Performance Evaluation Plan was used in monitoring the upstate New York contract. That is not correct; HCFA used an ad hoc monitoring plan similar to those used in Maine and Illinois.

Second, on the bottom of page 1-39, the draft report states that HCFA requires all carriers to provide toll-free telephone service to beneficiaries. Because of the cutbacks imposed on carriers during 1981 and 1982, this requirement no longer exists.

Third, we note as we did in item 7 of our September 30, 1982 letter to you, that the use of a "per-claim cost comparison" is misleading as long as there is no uniform definition of a claim. We think that an average cost per Medicare beneficiary is a much more reliable and appropriate method of comparison.

We hope the foregoing is helpful to you. If you have any questions or would like to discuss any of the matters touched on in this letter or in the draft report, I would be happy to talk with you.

Sincerely,

John T. Mangan

JTM:lv

500-81-0041

Medicare
Part B

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May 16, 1983

Stephen T. Mennemeyer, Ph.D.
Project Director
Abt Associates, Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138

Dear Dr. Mennemeyer:

This letter contains our comments on the draft copy of Abt Associates's final report on the Medicare Part B fixed price experiments.

In general EDS Federal agrees with the information presented in the report and Abt Associates' interpretation of this data. The following comments are submitted to expand on a few areas of the report in order to provide a broader understanding of our operations and performance in Illinois.

The last paragraph on page 1-26 begins with the statement, "While EDSF's performance in some areas has improved, there continues to be considerable dissatisfaction with their overall performance." EDS Federal considers this statement to be dated and not consistent with the results of the beneficiary and provider surveys conducted by Abt Associates in Illinois. Over the past two years there have been major improvements in EDS Federal's performance. These improvements have been significant in virtually every area of carrier operations.

Beginning with April, 1982 through the present date EDS Federal has passed all System II Performance Standards (Results for Jan-March 1983 are not complete). During this same period EDS Federal's average processing time for claims, correspondence, and fair hearings has been considerably better than national averages. The payment/deductible error rate has been better than or very close to national averages. All of these indicators lead to the conclusion that any dissatisfaction detected is either based on past performance, not current performance, or it is with the Medicare Program and not with EDS Federal's administration of the program.

As supplemental information to the findings of the provider survey in Illinois which are generally favorable compared to the other carrier sites I am enclosing copies of endorsements EDS Federal has received from the Illinois State Medical Society as well as other major physician/supplier organizations. Also included is an endorsement from the largest clinic in the State of Illinois, Carle Clinic. While some dissatisfaction with performance during the early days of our contract is mentioned, these organizations clearly indicate satisfaction with EDS Federal's performance over the past two years.

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